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PUBLIC MEETING OF  
U.S.NRC-STONE & WEBSTER-CONSUMERS POWER COMPANY

PRESENT: STONE & WEBSTER:

- MR. MAJESKI,
- MR. LUCKS,
- MR. BURNS,
- MR. BARANOW,
- MR. AMORUSO,
- MR. HOLSINGER,
- MR. THOMPSON.

NRC:

- MR. RON COOK,
- MR. LANSMAN,
- MR. HARRISON,
- MR. GARDNER,
- MR. BURGESS.

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CONSUMERS POWER COMPANY:

MR. MOONEY,

MR. QUAMME,

MR. WELLS,

MR. MEISENHEIMER,

MR. WHEELER,

MR. MURRAY.

CERTIFIED SHORTHAND REPORTER:

JAYNE M. TINNEY

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MR. HARRISON: Good morning. I would like to welcome all of those present to the Stone & Webster, NRC, Consumers Power meeting.

And I have a few opening comments, and then I would like for everyone to introduce themselves who are going to participate.

We had a little mixup last month in getting the meeting and its issue, and we ended up getting two sets of meeting Minutes, one under a cover letter from Mr. Amoruso and one under -- incorporated as part of a Stone & Webster report, number 58.

In the future, I would like for the NRC to receive



1 just one copy of the meeting Minutes from Stone & Webster. 3  
2 It can be under the signatures of both Mr. Lucks and Mr.  
3 Amoruso, but to avoid any confusion, mainly to just  
4 proceed with one set of meeting Minutes that we can review  
5 so we get our reports issued in a timely manner.

6 Also, the second issue along that line is the timeli-  
7 ness of issuance of the Meeting Minutes is extremely  
8 critical. And I would like to ask that Stone & Webster  
9 attempt to issue those meeting Minutes in one week, if  
10 possible. And I would also suggest that the format that  
11 Mr. Amoruso used in his October the 24th, 1983 submittal  
12 will be the the format that you will follow in the future.  
13 I thought that was quite good.

14 I would like to turn the meeting over to Mr. Lucks  
15 so he can give us his presentation on the soil areas.

16 MR. LUCKS: Good morning. Pete Majeski and  
17 myself this morning will address the assessment team in the  
18 areas of underpinning and remedial soils work. I'll  
19 start my presentation by addressing an item that was  
20 discussed at the last month's public meeting, namely the  
21 tracking of assessment team open items.

22 Based upon the discussion of the closure of tracking  
23 of open items identified in the assessment team daily  
24 meetings, we had decided to institute a revised classi-  
25 fication and tracking system for items discussed at these

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meetings.

There are now five classifications of items discussed at the meeting. And I would like to go down each of these classifications, one by one, to describe.

The first item would be an open item. An open item is an item for which an action is required by the assessment team. And the item will remain open until the required action has been taken, and for an open item, tracking will be required.

The next classification would be a closest item, and a number repeated after the closest item. This notation will identify an action that closes a previously identified open item. And once it's identified as a closing item-XXX, tracking of the open item will stop.

The next type of item is a closed item, and this is an item usually brought forward by the assessment team at the daily meeting, and for which is discussed and responded to adequately at the meeting. No tracking will be required for closed items.

An information item will be an item that is brought forward to provide general background, background information regarding the work, such as status of upcoming design changes and other general information. For an information item, no tracking will be required.

The last classification is an opinion item. An opinion

1 item -- an opinion item will be an opinion or suggestion  
2 given by the assessment team expressing an ultimate con-  
3 struction or quality assurance technique. The opinion or  
4 suggestion is given as a possible alternative that may  
5 facilitate the operation. No responsibility or implementa-  
6 tion is required as a result of an opinion item, and no  
7 tracking will be required.

8 I'd like to point out that the assessment team will  
9 not close out open items until a required action is  
10 verified by the assessment team. Previously we had closed  
11 out some items on the basis of valuable commitments. This  
12 will no longer occur.

13 This revised classification system has been in use  
14 for the last four weeks, and the assessment team procedures  
15 have currently been revised to reflect this new system.  
16 In conjunction with this revision to our closure and tracki  
17 of items, the assessment team is reviewing past weekly  
18 reports for items that may not have been -- that may have  
19 been closed without verification of the requirement of  
20 actions.

21 So far, five such items have been identified from the  
22 review of reports 30 through 57. Only in one of those  
23 items had action that was required by a commitment not  
24 been carried out by Consumers or the contractor.

25 We are presently reviewing reports 1 through 30 to

1 identify items for verification of closure in these  
2 reports.

3 Pete Majeski is now going to address our activities  
4 over the last four weeks in the assessment work. And  
5 just to refresh everybody's memory, the assessment team is  
6 charged with overseeing the underpinning shown in white  
7 here for the auxiliary building area and the remedial  
8 soil work. In the report are the results of that over-  
9 view to the NRC to assist in giving assurance that the  
10 underpinning and remedial soil work is being conducted  
11 in accordance with project design, construction quality  
12 procedures.

13 And I would like to call on Pete Majeski to present  
14 the assessment team's activities since the last public  
15 meeting.

16 MR. MAJESKI: The assessment team's activities  
17 over the past month, which expands from October 9th  
18 to November 5th, has been limited because of a stop work  
19 order that went into effect on October 21st. I'd like to  
20 establish the status at present which hasn't changed  
21 much since last year -- last month. I'm sorry.

22 This is the east side -- a plan of the east side  
23 auxiliary building underpinning. The full red squares  
24 or rectangles are the piers that have been completed as  
25 of now. The crosshatch rectangle, like in this instance

1 here, is a pier that is under construction, and in this  
2 case, this is the completed east eight grillage.

3 Present are eight completed piers, and this one that  
4 is under construction. And of course, the east eight  
5 grillage.

6 Similar, on the west side, there are eight completed  
7 piers, one under construction, and the grillage has been  
8 installed. Approximately 30 percent of the piers are  
9 in place.

10 This is a summary of seven of the activities that  
11 would have been undertaken in the past month. The first  
12 five actually are sort of a selection of various activities  
13 ~~which are representative of what we have actually been~~  
14 doing.

15 In the first instance, the reinforcing -- we observed  
16 the installation of the reinforcing steel at the storage  
17 tank. In this case, we found that the installation was  
18 done in the proper manner in the course of the required  
19 procedures. In this -- in the case of the 36 inch diameter  
20 casing, we observed the removal of the casing and the  
21 subsequent reaming of the resultant hole to remove any  
22 loose soils around the casing.

23 We found that both of these operations were done  
24 in a meticulous manner. We did note, however, that the  
25 control of the slurring that was used in this operation



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was not -- left something to be desired, that it could be improved upon in the future operations, such as this is being done at the job site.

In addition, we found that the time required between the reaming operation and the subsequent backfilling with the concrete was somewhat excessive; however, in this instance, the contractor left the drill rig in place so that he could drop the drill steel down in the hole to assure that there had been no hole collapse, which is our major concern in this case, that during this period it would be a collapsible hole. So he satisfied our concern by leaving the drill rig there and sounding immediately before placing in the refills.

We feel this is the proper action in this case.

We have attended several of these weekly inter-organizational meetings which we find have been very productive in providing the communications between the various on-site organizations. We hope to see in the future that there would be improvement in the communications that will eliminate some of the problems that have developed over the past and the lathes during the construction.

During the installation of the struts between west 12 and west 14, we observed the inspection of the welds in this case. We found that the inspections were done in



1 accordance with the present quality control instructions. 9

2 The assessment team recently initiated review of the  
3 concrete crack machine and data. During this review, it  
4 was determined that the monitor of the crack from the  
5 concrete was performed using an unauthorized procedure  
6 with respect to the timing of the cracked mapping in the  
7 auxiliary building area. This resulted in our issuance  
8 of a non-performance identification report number 16.

9 It should be noted, however, that no deficiencies in  
10 the method of mapping were identified. We also found  
11 during this review instances where data entries were  
12 illegible or the forms were incomplete. These were  
13 brought to the attention of the contractor which will be  
14 responded to in the near future.

15 As mentioned by Stan, we have reviewed weekly reports  
16 30 through 57 to verify everything was adequately closed  
17 or identified those that weren't adequately closed.

18 Stan will make a presentation when I complete on our  
19 activities regarding the changed documents, stop work order  
20 which now is in effect. This is the status of the three  
21 non-performance identification reports which have been  
22 active this past month.

23 NIR number 14 concerning the nut procurement has  
24 been responded to this week by Midland plant quality  
25 assurance department, and we are currently reviewing this

1 response.

2 NIR number 15 identified non-conformance where one  
3 of MPQAD supervisors lacked the requirement of certifi-  
4 cation. The point of the NIR is the quality assurance  
5 department acted responsively by issuance of a memo to  
6 redirect inspectors, certified supervisors during the  
7 period during which the response was being prepared.

8 The resolution consists of reorganizing the super-  
9 visory personnel and providing new job descriptions con-  
10 sistent with this reorganized staff.

11 NIR number 15 was discussed earlier -- 16, I'm  
12 sorry -- was discussed earlier. This is a summary --  
13 this is a summary of the 17 existing open items. Is  
14 there any questions on those items, or any of those  
15 items?

16 Well, if there are no questions, I'll turn it back  
17 to Stan.

18 MR. HARRISON: We're going to have some questions,  
19 but we'll wait until you are finished.

20 MR. LUCKS: With reference to the changed  
21 documents, stop work order, the assessment team has reviewed  
22 the basis for NYAD decision to issue the stop work order.  
23 Based on this review, the assessment team believes that  
24 an appropriate action was taken because the potential im-  
25 pact of the problem cannot be determined until all of the

1 existing changed documents are evaluated as part of the  
2 plan to resolve the stop work order.

3 The assessment team also reviewed the plan that has  
4 been developed for evaluating the problem and identify  
5 potential problems for resolution, and we found it to be  
6 thorough and appropriate.

7 The organizations involved in the effort realized  
8 that the plan may require changes to respond to concerns  
9 that may be encountered as the changed documents are  
10 evaluated and corrective action is planned. We feel that  
11 the plan provides trackability of the corrective action.  
12 To summarize these observations, the condition rendered  
13 the construction indeterminate. MPQAD reaction was  
14 appropriate. The Bechtel response is appropriate. All  
15 parties have cooperated with the CIO team and the assess-  
16 ment team in our assessment of it. The corrective action  
17 plan is trackable.

18 In conducting this assessment, we brought one of our  
19 engineering assurance specialists out from the Boston head-  
20 quarters to assist the teams in making that assessment.  
21 I'd like to point out that in the resolution of the stop  
22 work order, two concerns that have been identified by the  
23 assessment team should also be addressed.

24 First, those concerns are the permissible number of  
25 changed documents attached to drawings. In addition to

1 this being a concern of the team, Dr. Lansman in the 12  
2 past has also identified this concern. And we feel that  
3 this problem should be resolved by -- in the action related  
4 to the stop work order.

5 The second concern that has been identified by the  
6 assessment team, namely the timeliness of final project  
7 engineering approval on interim, with field change require-  
8 ments that had received interim approval. We feel that  
9 the time delay between the interim approval and final  
10 approval is too long, and we feel that that concern should  
11 also be addressed by the organizations during the resolution  
12 of this existing stop work order.

13 And that completes our presentation. And we would  
14 be glad to address any questions that you may have.

15 MR. HARRISON: We are probably going to have a  
16 little overlap, because in our preparation for the meeting,  
17 we basically had designed our questions and answers based  
18 around a calendar month, not around your report. So we  
19 may lean over a little bit in your report 59, but primarily  
20 we will be working between report 55 and 58 and basically  
21 stay within the calendar month of October.

22 What I would like to do is I have a series of  
23 questions and I'm sure that all my people have some ques-  
24 tions. And I would like to just start out with report  
25 55, if we could, and go through that first of all.

1 Some questions will be directed to Stone & Webster and  
2 also some to Consumers Power Company.

3 Report number 55, on page 3, the assessment team  
4 made an observation that there was a delay in the final  
5 signoff of a concrete power card just prior to initiating  
6 placement.

7 My question is: was the concrete ordered prior to the  
8 card being signed off? That's what -- when I read this,  
9 this is what I am understanding, I believe.

10 MR. LUCKS: Can you address that for me,  
11 Pete?

12 MR. MAJESKI: I believe in that instance, it  
13 was, but I'm not 100 percent sure.

14 MR. HARRISON: Okay. I guess I have a couple  
15 of questions along that line.

16 Number one, I would be curious to know from Consumers  
17 Power Company why in the event of the array of items that  
18 are constantly identified -- or not constantly, but seem  
19 to continually surface in the Stone & Webster reports  
20 identifying various time lags? In this case, you've got  
21 a concrete truck sitting, ready to make a placement, but  
22 the card has not been signed off.

23 I'm curious to know why and, secondly, I want to ask  
24 Stone & Webster why this is identified as an observation  
25 but it is not a report item. I could not find it in your --



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as a tracking item in your report.

MR. MAJESKI: What we have done in that instance, we went through the past 28 weeks. We identified a number of items such as that and other items that concerned HVAC. We gathered together a list, and in the end, we ended up with some 19 or something like that of items similar to that where we made an observation that FCR processing could be improved upon with respect to time, timelines of concrete powers or power cards would be improved upon, processing of NCR's could be improved upon. And we felt that those types of items are really assessment team concerns from -- in a very subjective manner. That as far as the contractor is concerned, they can't respond by issuing a FCR or a document. They have to respond by improving. And this is an ongoing -- we are making ongoing observations along these lines.

For instance, back in the spring, there was considerable time lag between the issuance of an NCR and the time that it was resolved. There was, I think -- at least in one report back then, we made note of this. There was in late May an elongated session with the contractor and Consumers resolved a number of these NCR's, set up the engineering and construction coordination meetings, which is ongoing, a weekly meeting to resolve NCR's as expediently as possible, set Barary lists, etc.



1                   So there was a tremendous decrease in the response 15  
2 time immediately, like maybe an average of three or four  
3 weeks perhaps. Now, maybe a couple of weeks or a week and  
4 a half, something like that. I guess maybe two weeks would  
5 probably be more reasonable, and then it slowly, but surely,  
6 cut away at that.

7                   So we have an ongoing assessment team item that is  
8 within our own internal tracking system, which is actually  
9 part of our job, to keep an eye on these types of things.  
10 And when we feel that they are at a point where they can't  
11 do much better, that's where we'll probably say that's  
12 good enough or make some sort of observation like that,  
13 of course recognizing the fact that some NCR's which could  
14 be minor deviations or deficiencies could be turned  
15 around perhaps in a couple of hours. But they may be  
16 stopping the work for a couple of hours.

17                   We would like to see those things addressed immedi-  
18 ately and turned around in a short period of time.

19                   On the other hand, there may be NCR's that definitely,  
20 by their nature, might take a couple of weeks. But on  
21 the other hand, do not impact the work. It's a relative  
22 type of thing. If they let those go for two weeks, nobody --  
23 it doesn't make very much difference. But if the two  
24 hour -- the one that can be turned around in two hours  
25 and they end up taking two days for some reason, that's

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not acceptable.

So you know, there is quite a bit of judgment that is involved there.

MR. HARRISON: Well, I'm not trying to say that you should have made this an item. My concern is that evidently, through either poor planning or lack of attention in detail, this problem surfaced. And I'm just curious to know how Consumers Power Company is going to address correcting an issue like this?

MR. LUCKS: Could I add one comment from Stone & Webster before it goes over to Consumers Power?

MR. HARRISON: Yes.

MR. LUCKS: If we saw an item like this impacting the quality of the work to be constructed at that point, it would be tracked as an open item or an NIR.

At this point in our review, this was the review of reports 30 through 55. I think at this point, this would be classified as an opinion item and was not identified as an open item.

MR. HARRISON: Okay. But I think it -- certain items, if it isn't an opinion item, should have been listed in your report as an open item. I think 55 was prior to your new system.

MR. LUCKS: It was prior to the new system.

MR. MOONEY: We are certainly aware of the

1 various concerns expressed by Stone & Webster regarding  
2 delays which have been reported out. We have tried to  
3 address the -- and it's not just one particular problem.  
4 We tried to address several problems that have been  
5 identified.

6 I would also add that I think it's more important to  
7 insure that we can conform with all of the requirements  
8 than it is to do something expeditiously and not conform  
9 to the requirements.

10 So I think there is somewhat of a tradeoff there.  
11 But we are certainly aware of the concerns and we have  
12 addressed them in a number of ways. And one of the things  
13 that we ~~are doing now which has been pointed out previously~~  
14 is the inter-organizational meetings that we have weekly.

15 So we are team building or improving communications.  
16 I think this has shown some immediate benefit in improving  
17 communications and trying to overcome some of these prob-  
18 lems.

19 We certainly will plan and will continue to strive  
20 to improve our performance relative to time.

21 MR. HARRISON: Okay.

22 MR. WELLS: Excuse me. I don't know whether  
23 you are going to come back to NCR's as a separate thing,  
24 but as far as time limits, that came up last time. I  
25 can address that, whatever that is.

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MR. HARRISON: As far as NCR's go?

MR. WELLS: Yes.

MR. HARRISON: We are going to talk about that. The next question was also on this page under observing team in operations, under number 2 on page 3, the assessment team has noted problems with U. S. Testing.

And I'm curious to know what the assessment team can tell me about the U. S. Testing audit results as far as changing and status gone? Have you seen -- are there any improvements, what kind of action is based on the acts that have been taken? Can you tell me anything about that?

MR. LUCKS: We have been following that item quite closely and we have received status reports on the corrective action. The most recent status report that we received was yesterday in our daily meeting.

Based on review of that report, and there were several, several items that have been identified as requiring corrective action by U. S. Testing. They have made significant progress in correcting the items that are still outstanding.

We are following that item on U. S. Testing in the future so that if they were not making progress on them, we would take action in our weekly report.

MR. HARRISON: I'm not familiar with the problems

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that have been identified, but were the problems related to implementation?

MR. LUCKS: Both related to -- the ones that stick out in my memory, from looking at the report, is at the managerial level, training of staff. And I think the availability of said fine staff and several other items on the U. S. Testing program.

I couldn't give you examples beyond that.

MR. HARRISON: Okay. Would you like to respond to that?

MR. WELLS: Yes, I can make a couple of comments on that. We -- it was our opinion in the quality assurance group that the items that directly related to -- during the audit -- those issues that could have resulted in incorrect testing or incorrect results of tests were immediately tested.

We have had some followup action that has not been completed yet that does address primarily the management issue. We met -- we didn't have it today. We met, because we were gone the first three days of the week and have asked for again a specific corrective action plan Monday from the contractor, and we'll look at that, and if it's not satisfactory, we will take additional action.

So we are still currently driving to get total corrective action of that issue. It was our judgment that it



1 was more than that, that any kind of areas that were 20  
2 mentioned in questions of the management and the staffing  
3 as opposed to anything that related to specific doubt about  
4 the final work product.

5 Now, if that's different than Stone & Webster  
6 believes, why --

7 MR. LUCKS: No. No. No.

8 MR. HARRISON: I guess my comment here would be  
9 the first indication that the NRC had that you had problems  
10 with Stone & Webster was back in June of 1983 when you  
11 performed an audit.

12 MR. LUCKS: The U. S. Testing.

13 MR. HARRISON: The U. S. Testing. I'm sorry.  
14 With the U. S. Testing. I guess I'm a little perplexed  
15 due to the fact that it has been some six months, and  
16 evidently it appears that the problem is still not under  
17 control.

18 MR. WELLS: Not totally and it isn't that nothing  
19 has happened. Some corrective actions have been taken with  
20 the management, and frankly, the management didn't work  
21 out. It isn't that nothing has been done, but some cor-  
22 rective action did come through the way it was supposed  
23 to and we are going to go further.

24 MR. HARRISON: Okay.

25 MR. LANSMAN: Along the lines of the U. S.



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Testing, I hate to jump to 59 right now, but there is an item 59.17 on two NCR's that were written, an MPQAD concrete for the Carlson meters.

Does that have anything to do with the U. S. Testing or is that just the regular QC people that are involved?

MR. LUCKS: Could you give us a reference?

MR. LANSMAN: 59.17. It's the item number.

The question --

MR. LUCKS: This is on the daily meetings?

MR. LANSMAN: Right. Has that to do with the U. S. Testing or just the general QC people?

MR. LUCKS: Can you address that?

MR. MAJESKI: I haven't had an opportunity to really look at this particular report or the NCR's.

MR. LUCKS: This item came up last week on Wayne Killtrecks, tutor assigned to Pete.

MR. LANSMAN: Does Consumers have anything on that?

MR. WELLS: I'm not sure if we can respond or not on that.

MR. MEISENHEIMER: I do not believe that has anything to do with the U. S. Testing; right?

Now, I'm not positive, but --

MR. WELLS: I believe we can give -- I don't believe we can give you a response.

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MR. HARRISON: How about at the next meeting?

Can you address that?

MR. WELLS: Sure. Next meeting.

MR. HARRISON: The next item that I have is on item 55.14. I would ask that Stone & Webster clarify for me in the middle of that paragraph: the other correspondence will be supplied to FSO, which indicates changes to PQCI's are necessary.

I read this paragraph and I don't understand what that sentence means. What other correspondence are you talking about?

MR. MAJESKI: Give me a minute to read this for a minute.

They have -- MPQAD has a -- I don't know if they call it a third level -- I can't remember the name. There is a document that they have in their control system that identifies when a procedure must be revised or training might be required.

Perhaps --

MR. WELLS: You mean training to a revised procedure?

MR. MAJESKI: Yeah. There is a procedure. There is like a construction procedure is going to be revised, and then MPQAD identifies that, so then -- and they are identifying that they realize that the PQCI

1 must be changed and there may be some necessary training.  
2 And I forget the name of that document, but that's what  
3 that is referring to.

4 MR. WELLS: Are you talking about the change  
5 notice document?

6 MR. MAJESKI: It is sort of a tracking mechanism  
7 so that they are aware that this is coming.

8 MR. WELLS: I can't think for sure what you are  
9 searching for either.

10 MR. HARRISON: When I read this, it looks like  
11 there is some kind of correspondence being -- or have  
12 been generated to indicate that PQCI's need to be changed.  
13 That is what I didn't understand.

14 MR. WELLS: I don't have the report in front of  
15 me.

16 MR. MOONEY: We don't have the report.

17 MR. MAJESKI: I think when it is identified that  
18 a construction procedure is to be changed, then they  
19 recognize the PQCI has to be changed at some point. And  
20 that's when they try to get it in a tracking system.  
21 And they provide this FSO so this FSO now realizes that  
22 possibly in the ensuing weeks or a few days, whatever the  
23 case may be, that there may not be inspectors trained  
24 to that particular work item.

25 MR. LUCKS: Enough to let MPQAD know the work

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order is coming out so that they can have the inspectors ready and the PQCI changed.

MR. WELLS: That's what this is. Now that I see the whole subject, it's more of an advanced warning that there is going to be a change. It has nothing to do with the content of the change. It's not a quality --

MR. HARRISON: Okay. There were a couple of questions that came to my mind. One was what kind of correspondence are you talking about, and then it looked like FSO was indicating the changed PQCI wouldn't be necessary.

And you are saying this is a timing type thing? You are sure that once the change is made, that the QC inspectors would be recertified as necessary so that they would be available?

MR. LUCKS: They are trained specifically that if the PQCI is going to change, to address a changed construction procedure or other documents that change and retraining has to be done in time for the work that is coming out, and FSO will let MPQAD know of the schedule for that work so they can be ready.

So it's a timing schedule problem to resolve the situation where there may not be -- there may be delays in the work due to inspectors not being available at PQCI's revised.

1 MR. HARRISON: Okay. Moving down to the bottom  
2 of that page on item 55.15, talking about a QC inspector  
3 who signed off on some foxholed couplings being installed  
4 and it says there, QC wrote an NCR on the non-certified  
5 installer.

6 My question is: was the NCR initiated prior to  
7 Stone & Webster identifying this item or was it initiated  
8 because Stone & Webster identified this item?

9 MR. MAJESKI: We didn't identify the item.  
10 It was just made known to us that that instance occurred.

11 MR. HARRISON: Okay. Well, item 55.20, which  
12 addresses the Standish Fabrication Shop work status talks  
13 about resolving some problems with the welding specifica-  
14 tions. It says work was stopped over the weekend.

15 My question is: what was the problem with the  
16 welding specifications that caused the stop work?

17 MR. LUCKS: I couldn't -- without going back  
18 and looking at the records --

19 MR. HARRISON: Can someone from Consumers answer  
20 that?

21 MR. WELLS: I'm trying to think. I remember  
22 the instance. I'm trying to recall the specific facts.  
23 It may come to me.

24 Do you remember, Jim, on that one?

25 MR. MEISENHEIMER: I can't remember exactly,



1 no.

2 MR. HARRISON: Well, it is a two part question.  
3 One, I was curious to know what the problems with the  
4 welding specifications were; secondly, you stopped work.  
5 Was that a formal stop work?

6 MR. WELLS: I think it was. I think it was,  
7 but I'll have to verify it with you next time or however  
8 you want to do that.

9 MR. HARRISON: Okay.

10 MR. MEISENHEIMER: Gee, I'm not certain, but I  
11 believe that's the one where a change had come out and  
12 the change had not been received at Standish, incorporated  
13 into their control documents that they were using up  
14 there.

15 MR. WELLS: Do you remember if it was a formal  
16 stop work order?

17 MR. MEISENHEIMER: No. The work was stopped  
18 because they did not have the documents up there, so they  
19 had to stop their own work because the documents were  
20 not correct to change.

21 MR. WELLS: Can you recall all the specifics?

22 MR. MEISENHEIMER: I will have to get to the  
23 specifics, that's why --

24 MR. HARRISON: Do you feel that -- based upon  
25 what you can tell me now, do you feel that a stop work,



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formal stop work was necessary?

MR. WELLS: I guess I don't know.

MR. MEISENHEIMER: I'll have to look at the question before I can make a response.

MR. HARRISON: Okay. Fine. The next question I have is item 55.22 and also if you look over at the 55.30 item, 55.30 was the basis for closing 55.22.

However, if you look at item 55.30, the actual level required by the beam seats is indeterminate and could not possibly be within the required tolerances.

When I read that, it sounds like the status to me is indeterminate as well; however, Stone & Webster elected to close the item.

My question is: why?

MR. MAJESKI: It basically -- I can't exactly remember this -- the problem there. But it was basically an installation problem. They had to perhaps adjust the weighant, if -- my memory is a little weak there, but -- and so they elected to remove the beams, the weigher seats in order to start fresh again and put the seats in the proper location.

For instance -- I'm not sure if this is exactly correct, but for instance, if they were only allowed to put in so many shims or like that below the weigher to get it in the proper location, if they let the seat at that

1 level and some other thing required that the weigher  
2 be lifted or raised because as I say, a connection with  
3 an existent structure, which is the case here, then they  
4 would be in violation of their documents because they  
5 couldn't shim up above a certain level. So they elected  
6 to start these off, to start anew and rework the whole  
7 thing. It is an installation problem because of site  
8 conditions that existed in that area. There was a lot of  
9 reinforcing steel in the structure surrounding this which  
10 this weigh system has to be tied into.

11 They had to readjust the locations of the rock anchor  
12 or the anchors that were put in the concrete and the  
13 plates, etc. So they had a re-evaluation to do, and  
14 that's why these things were removed because it would  
15 cause subsequent problems.

16 MR. LUCKS: If I can backtrack, in reading  
17 these two items, we had noted at one point that they were  
18 installing beam seats and then they were removed and we  
19 asked the question why they were removed, and they  
20 replied that they realized there was a problem with the  
21 tolerances on the position so that they had selected  
22 to remove again and resolve that problem and reinstall  
23 them properly.

24 So our question was why they had been taken out,  
25 not -- and their explanation was satisfactory, and they were

1 other audit and issues that have been raised. It really 30  
2 was not a formal audit from a quality standpoint at all,  
3 but they're following up to see if they felt that things  
4 were being both -- you know, the construction areas, which  
5 is that arm of the group, trying to work the construction  
6 people to see if they were doing their job.

7 That's my impression.

8 MR. LUCKS: Yes.

9 MR. HARRISON: Can someone tell me if any -- if  
10 that team identified anything different than what the  
11 MPQAD audit team identified?

12 MR. WELLS: I can't --

13 MR. MURRAY: The type of things that were  
14 identified were more of management getting more people to  
15 work more effectively. There was -- there were no quality  
16 aspects that were called out in this audit. It was  
17 more of making sure that people have certified this more  
18 than one activity so that you could utilize your men more  
19 efficiently. It's more of a utilizing the program more  
20 efficiently.

21 MR. HARRISON: You are really looking at  
22 improvement of the program rather than a quality program?

23 MR. MOONEY: Let me point out this is Mr.  
24 Murray. He is in the management organization in the soil  
25 remedial work.

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MR. LUCKS: I'd like to clarify your statement a little bit. You said the team, meaning the FSO team, not the assessment team?

MR. HARRISON: That's correct.

The only other concern I had here is if anything was identified that wasn't a quality related item that MPQAD would have picked that up with an NCR.

MR. WELLS: It certainly would have been our intent. I can't swear to you that we did anything or anything showed up because I haven't laid it out side by side. Our quality people did have an opportunity to see the report.

MR. HARRISON: How about the next meeting that you address that point, if you will?

MR. WELLS: Okay.

MR. HARRISON: Item 55.32. Again, this is an item that the NRC, and what it is for is that you don't have a mixing drum on a concrete truck which was revolving when it was not operating. It was not prior to the discharge.

I would guess in any case this is an item that we have identified before and Broad Weiland was the gentleman that identified the problem. I would hope that the attention detail of resolving issues like this would prevent this from recurring in the future.



1                   That's just a comment. 31

2                   MR. LANSMAN: I also have a comment, since it is  
3 one of my items. Does the resolution which was that  
4 concrete truck drivers are going to be instructed and  
5 taught that all -- that their drum shall be revolving on  
6 idle speed when discharging concrete. Is the State going  
7 to make a formal procedure or is that just an instruction,  
8 an informal instruction to the drivers?

9                   It seems that a couple of years ago I brought this  
10 up and there was instructions to the drivers and everything,  
11 and here we are at it again. If Mr. Weiland or whoever,  
12 somebody thinks it's important enough to tell them to keep  
13 the trucks turning, I for one think it's important enough,  
14 since I have been bringing it up for the last few years,  
15 are we going to make this a formal procedure now or --

16                   MR. MOONEY: I will take the action and look  
17 into it and report back to you.

18                   MR. MAJESKI: If I could interject, this is an  
19 open item on this new list. It was on the last item that  
20 we had up here, and I know that FSO is preparing a response  
21 to it.

22                   MR. LUCKS: So we are now tracking that.

23                   MR. HARRISON: Okay. I have one last question  
24 on report 55, item 55.33. A notation on the procurement  
25 of new equipment for the breaking, removal of concrete



1 in continuing doing excavation. I'm curious to know what  
2 kind of equipment are you considering?

3 MR. MOONEY: We're looking at several different  
4 things. To tell you the truth, I'm not sure what the  
5 trade names are, but they are basically a skid mounted  
6 industrial type impact hammer which can be set to a pattern,  
7 and using the impact process, it pulverizes the concrete.

8 And that's the type of thing we are looking at. It'  
9 a special tool, I understand, from Bolten Industries.

10 MR. HARRISON: Let's proceed to report 56 then.  
11 Report 56, page 2, the assessment team, I think Mr. Majeski  
12 had already covered this item. That has to do with two  
13 aspects of the case: removing the backhoe, being improved.  
14 Is this identified in your report someplace, tracking, as  
15 far as you're making the item here that's going to be an  
16 observation or suggestion? I'm not sure how you are  
17 identifying this, but --

18 MR. MAJESKI: Let's see. The one on the slurring  
19 is in here.

20 MR. HARRISON: Well, to me, when I read this  
21 thing, there is really three things. One is the identi-  
22 fiable control, the consistency of the slurry, nor was  
23 there a check that the process mixed was effective.

24 MR. MAJESKI: That one --

25 MR. HARRISON: And the second one was the time

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lag between the reaming operation and the backhoe concrete. Did you identify there is an item to be tracked in the report?

MR. MAJESKI: Well, it is now into our new system. What -- we have also implemented a method where we can track items that are included in this, the report.

After this report is issued, we'll bring the report to the next daily meeting that we have with the FSO, read the report and identify any items and enter them into the tracking system and in this instance, the item on the slurry is an open item. The item with respect to the time lag again was related to this concrete pourcot (phonetic) type thing. And they satisfied our real concern that they could have been collapsed, you know, because we recognize that the fact that the trowel rig was there to check the hole to make sure that there was no collapsing during this interim period.

So that is a closed item. So there is really one open item on the slurry.

MR. HARRISON: Okay. On item 56.1 under your new system, you have items listed A through F. You have item F identified as an information item; however, you do not have a designator listed for items A through E. Okay. Yet -- but on the previous page, you laid out -- or the previous part of this report, you laid out what your new

1 criteria was going to be.

2 MR. MAJESKI: The intention was the information  
3 supplied to all of those items in the status -- that was a  
4 work status. We used it in that instance, but then we  
5 abandoned that method of utilizing it.

6 MR. HARRISON: Okay. No problem.

7 Item 56.32, which is the last page of that report,  
8 you talk about the use of green tags with QC hole tags.  
9 Can you tell me when you use a green tag? I'm not familiar  
10 with that.

11 MR. MAJESKI: At one point when an NCR was  
12 issued, work would cease in a great area of the underpin-  
13 ning operations because we didn't -- the contractor did not  
14 want to work through a hole tag. So they then had to  
15 identify the area that was actually affected. So as a  
16 result of that, they attached these hole tags -- I mean  
17 these greentags which would identify the area being affected  
18 by the existing hole tag on some piece of hardwood. And  
19 that's how that was handled.

20 Now, it's being revised so it is going to be right  
21 on -- this is going to be addressed right on the hole  
22 tag.

23 MR. HARRISON: Was that part of the non-conforming  
24 procedure process, the use of these green tags?

25 MR. MOONEY: I don't understand your question.

1 MR. WELLS: The use of the green tag, Jay, it  
2 was explanatory. It was to explain in more detail the areas  
3 of the hole tag. That was the intent.

4 MR. MOONEY: I think what Pete is indicating is  
5 that the colored tag is being placed on some items and  
6 it was our -- a very conservative approach that once the  
7 hole tag was in the area, we didn't bother with anything  
8 in the area because there was a concern about what really  
9 the hole tag was.

10 MR. HARRISON: That's not my question. I under-  
11 stand that. My question is if you are using a green tag  
12 to redefine or to define what the hole actually means,  
13 was that part of the procedure of applying the use of a  
14 hole tag or the non-conformance?

15 MR. WHEELER: May I address that, please?  
16 That's the reason that the green tags were -- they were  
17 not part of the non-conformance procedure. And since  
18 it wasn't part of that control, we felt that green tags  
19 should not be used. So we discontinued the use of the  
20 green tags and are going to use the hole tags to provide  
21 that same information.

22 MR. HARRISON: How long was that practice in  
23 effect?

24 MR. WHEELER: I'm not sure.

25 MR. MEISENHEIMER: Just a few weeks.

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MR. WHEELER: A few weeks maybe.

MR. MEISENHEIMER: The only thing the green tags identified is what items were not impacted by the non-conformance they had.

MR. HARRISON: They only identified the items that were not affected?

MR. MEISENHEIMER: Yes, not affected by the non-conformance. I think that explains it a little better than extending the control of the non-conformance.

MR. MEISENHEIMER: Yeah.

MR. HARRISON: Okay. Report 57, on page 3, my question is to Stone & Webster evaluating the action being taking by Consumers Power and the documentation problem that's recently caused the stop work and I think you addressed that previously.

MR. MAJESKI: Yes.

MR. HARRISON: Are you going to continue to review this until it's done?

MR. LUCKS: Yes.

MR. HARRISON: Okay. Can Consumers Power tell me what the projected restart date for soils is?

MR. WELLS: Yeah. Let me address that a bit. The process that we are going through, and I won't go into a lot of detail unless you want, the phase 2 that we call it is the appointment of FCR and NCRs have been



1 reviewed and also been reviewed to determine whether  
 2 there are potential drawings that need to be looked at  
 3 again to verify whether it was or was not a problem caused  
 4 by this -- by the process, use of NCR.

5 That phase 2 is supposed to be done and scheduled  
 6 for the 17th of November. After that point in time, there  
 7 will have to be some runners to the tic file to do some  
 8 checking to verify whether -- make any corrective action  
 9 or then go through the final verification.

10 That will take something in the order of a couple of  
 11 days to a week, depending, to do the whole process. We'll  
 12 go into the soils first and some other areas to expedite.  
 13 We think that everything should be done by December 1st --  
 14 soils should be done somewhere between November 17th and  
 15 December 1st.

16 MR. LANSMAN: That will include the effect of  
 17 non-soil related general site specifications as they affect  
 18 the soils?

19 MR. WELLS: It will include all fifty thousand  
 20 of that, correct.

21 MR. LANSMAN: All right.

22 MR. WELLS: The December 1st date, Russ.

23 MR. LANSMAN: Yes.

24 MR. HARRISON: Item 57.7 relates to the  
 25 inspection of the placement of the reinforcement steel.

1 It's indicated in this report that the inspections would 39  
2 be done in a phased fashion, that it would appear, according  
3 to this, four or five written inspection requests would  
4 be done.

5 My question is: will the -- and this is to Consumers  
6 Power Company -- will the final inspection prior to place-  
7 ment or the pre-placement inspection, whatever you want  
8 to call it -- how would that insure that what was done  
9 on section number 1 and number 2, that the placement of  
10 that steel remains in the required spacing and so forth  
11 based on the final inspection, because people will be  
12 working in there as the steel placement goes on.

13 How are you going to assure that you've got the  
14 final procedure product when you're done?

15 MR. MEISENHEIMER: The BWST has done its section  
16 as far as the steel goes.

17 Exactly how the IR's are interrelated for each  
18 section to make sure of the closure, I can't answer that  
19 right now. I can't -- there is a tie to mixture that  
20 all those IR's are closed out prior to those sections  
21 being placed and does conform to the requirements.

22 Now, how that interties with the IR's, I can't  
23 explain that.

24 MR. HARRISON: What you are indicating is that  
25 the steel placement inspections are going to be done in a

1 segmented pattern around the circumference? 40

2 MR. MEISENHEIMER: Yes.

3 MR. HARRISON: It's not going to be in a stacked  
4 fashion from the bottom up? In other words, this is going --  
5 you are going to divide it up into four or five quadrants?

6 MR. MEISENHEIMER: Well, basically, it is all  
7 open on the outside and then forms those in.

8 I can't exactly explain right now how exactly this is  
9 tied in, but it is a phased approach.

10 MR. LUCKS: Jay, may I -- it is done in segments  
11 around.

12 MR. HARRISON: Segments around?

13 MR. LUCKS: Yeah.

14 MR. HARRISON: Okay. It shouldn't be a problem.

15 MR. MEISENHEIMER: No.

16 MR. HARRISON: Okay.

17 MR. LANSMAN: Item 57.10, lesson learned from  
18 auxiliary building underpinning. I seem to remember a  
19 lot of work went into the mockup prototype tester that we  
20 did in the late -- before we started auxiliary building  
21 underpinning, and we, the NRC, verified that all the  
22 lessons learned were incorporated into the auxiliary  
23 building underpinning before we allowed the work to begin.

24 I guess I'm making a formal request that since it  
25 is stated here in the middle that there is no formal

1 program that exists, I guess I am making a formal request 41  
2 that all the lessons learned on the auxiliary building  
3 underpinning be incorporated into the service order structure  
4 before we will authorize the beginning of the underpinning  
5 work on the service order pinning construction.

6 Since we've learned a lot in the mockup here that  
7 helped us in the auxiliary building, I think we have learned  
8 a lot in the auxiliary building to help us in the service  
9 order building.

10 MR. MOONEY: We will work with you on that. No  
11 problem.

12 MR. LANSMAN: I guess in item 57.11, was  
13 Stone & Webster was just questioning the requiring for  
14 welding between the lagging and soldier piles at the stone  
15 structure. I'm not sure if that was the same time, that  
16 I asked the same question. I'm glad that it is not showing  
17 up in the Stone & Webster report. It's just a comment that  
18 I had, the same observation.

19 Item 57.13. That's entitled additional penetrometer  
20 testing. Can someone explain to me -- I thought that  
21 Dr. Woods finished his program already. Why are we putting  
22 on some more holes?

23 MR. MOONEY: That work was stopped as a result  
24 of the stop work order which was issued relative to drilling  
25 through the strong back in the auxiliary building.

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MR. LANSMAN: Since that additional penetrometer testing, as it states in here, is it a continuation of the same?

MR. WHEELER: Also there were a couple of penetrometer test holes that couldn't be done because there was a mud slide from the stairwell. They didn't do those and they wanted to do those.

So the same program -- it's the same, everything we talked to you about.

MR. LANSMAN: Okay.

MR. COOK: Item 57.14, which Dr. Lansman made reference to closes out item 57.11 of the welding of the lagging of the service water structure. He indicated an FCR is in process to minimize the extent of this welding.

Was there also an NCR generated on that item 57.14?

MR. LUCKS: No, not to my knowledge.

MR. COOK: Should there be an NCR generated on that item?

MR. LUCKS: It would not be our opinion that there should be.

MR. HARRISON: Is this the item where you were actually reducing the amount of weld that you were --

MR. LUCKS: Our concern was we felt that the extent of the welding may have been so they could have



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reduced the amount.

MR. COOK: You are asking for the rationale to be -- requiring the lagging between the holding pile, was that?

MR. LUCKS: We were trying to.

MR. COOK: Was that already in the blueprints to do that? If it was in the blueprints, why are they putting an NCR on it now, or did they violate the blueprint that they had?

MR. MAJESKI: They performed the welding. The lagging that was installed was installed in accordance with the drawings, with all the welding and then the -- in the interim, they issued an FCR to get relief from all that welding.

MR. LUCKS: I think that consent went with our observation and Dr. Lansman's observation.

MR. HARRISON: This is one where you have the massive welds and you just reduced it down to -- it's not really a structure weld. It's more of a seal weld, holey welds.

MR. MAJESKI: Yes.

MR. HARRISON: Okay. On item 57.25, can someone from Consumers Power Company explain to me what the difference would be between the application or the use of fly ash requiring NRC approval on a cast-by-cast

1 basis on one application versus the use of the service  
2 water pump structure, which you stated that requires  
3 no NRC approval?

4 MR. WHEELER: Since I talked about it -- in  
5 relationship to 36 inch castings. That was an area that  
6 required approval, let's say, on a cast-by-cast basis,  
7 we have to get approval for all filling with fly ash from  
8 Dr. Lansman at the service water pump structure.

9 Our procedures require that if there is a void behind  
10 the lagging in the access shaft, we have to -- we have  
11 to grout it or use some type of grout to fill those  
12 voids.

13 Now, in terms of getting the approval from Dr. Lansman,  
14 I guess we -- it's implicit that this was required, or it  
15 could be required -- part of soil stabilization.

16 MR. HARRISON: So you are really saying that the  
17 use at the service water pump structure behind the lagging  
18 really is a temporary --

19 MR. WHEELER: It's a backpacking requirement.

20 MR. HARRISON: It's a temporary fix though.

21 It has nothing to do with the structure?

22 MR. WHEELER: Right. It is a backpacking  
23 requirement which we have talked to Russ about quite a  
24 lot. It's backpacking rather than an aerial fill type.

25 MR. HARRISON: Item 57.682, talking about the

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certification, 57 PQCI supervisory, 57.6, QC, further  
the team requesting further clarification on the availability  
and use of a level 3 certified staff person. The item is  
still open.

Has Consumers Power responded to 57.6 Q yet?

MR. LUCKS: We have not received a response to  
that item.

MR. HARRISON: Do you know if any work was  
approved that required a level 3 certified individual to  
apply his signature to anything was affected by this item,  
as identified by this item?

MR. MEISENHEIMER: No.

MR. HARRISON: It was not?

MR. MEISENHEIMER: We have had discussions on  
this response. We have issued the formal written response  
to Stone & Webster. The -- could you be a little more  
specific on your question, Jay, on what you were just  
asking about?

MR. HARRISON: I'm sorry. Well, for example, if  
something -- if an approval of a report or an approval of  
any document of a level 3 individual supervisor was  
required to sign and you, in fact, used an uncertified  
person that should have been so certified, did such an  
instance occur is what I'm saying?

MR. MEISENHEIMER: No.

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MR. HARRISON: You will be verifying that before 46  
you close that item out?

MR. LUCKS: Yeah. On this item, if I maybe can  
explain in a little bit more detail, what we are asking  
is we are now in response to our NIR. The inspectors  
are reporting to the discipline leads who set a fine  
level 2. The question was: could Consumers describe  
to us how the level 3 personnel were in the QA side,  
are made available to give advice to the level 2s and  
1s. And it's not the case of -- where somebody has signed  
off on something that should have been certified. This  
issue is so that we can see organizationally how that  
advice comes across from QA to QC.

MR. HARRISON: Okay. Item 57.7 Q is QC. When  
I read this, I assumed that MPQAD QC is not verifying  
pre-heat on welds.

MR. MEISENHEIMER: That is not true. They are  
verifying pre-heat on welds.

MR. HARRISON: What does 57.7 Q mean then?

MR. MAJESKI: Well, they are not verifying by  
actual inspection the heat effect zone. That's the welding.

MR. HARRISON: What are they verifying then?

MR. MAJESKI: I think in this case they're --  
that work is performed by FSO and it is verifying if there  
is a --

1 MR. MEISENHEIMER: 100 percent of all pre-  
2 heat is verified by the QC, whether it's a structural weld  
3 or an attachment or a non -- even non-structural welds.

4 The temporary type welds and attachments are inspected  
5 by the field welding engineering group and verified in the  
6 QC group, verified that field engineering has inspected  
7 and approved those welds, but the pre-heat itself is a  
8 QC function and it is done 100 percent.

9 MR. WELLS: You actually measure it?

10 MR. MEISENHEIMER: We verify that the tempo-  
11 rary meets requirements.

12 MR. HARRISON: If I understand this item, this  
13 relates to temporary attachments to Q related material,  
14 Q related material, or is it any material can attach to  
15 Q based material?

16 MR. MAJESKI: Personally, I'm not sure on  
17 that.

18 MR. MEISENHEIMER: It relates to non-structural  
19 types of welds attached to Q based material.

20 MR. HARRISON: Are the Q based material that  
21 these non-structural welds are being applied to, that is  
22 for Q material base material, right?

23 MR. MEISENHEIMER: Right.

24 MR. HARRISON: So the heat effected zone or the  
25 material on which the welding is occurring without proper



1 pre-heat could still develop a problem?

2 MR. MEISENHEIMER: No. Pre-heat is done 100  
3 percent and verified by QC.

4 MR. HARRISON: That's not what this item says  
5 though.

6 MR. LUCKS: I think if you read it, it says the  
7 pre-heat is required to be checked by an MPQAD. We are  
8 satisfied with that aspect.

9 We are saying that it is equally important to inspect  
10 the heat effected form on the Q based material rather than  
11 just verifying that the field engineer inspected the heat  
12 effective.

13 MR. HARRISON: I truly don't understand what  
14 you are saying then.

15 MR. MAJESKI: Well, I guess the -- what we are  
16 saying is if you have to inspect the pre-heat, then isn't  
17 it equally important to inspect the effect of the actual  
18 welding on the base metal, because that causes heat in the  
19 metal also? There seems to be a conflict there.

20 If one is important, the other is important. If one  
21 is unimportant, then the other is unimportant.

22 MR.HARRISON: Are you talking about inspecting  
23 the base metal during welding or after welding?

24 MR. MAJESKI: After welding.

25 MR. HARRISON: After welding. Does MPQAD not

1 not inspect the final welds?

2 MR. MEISENHEIMER: The final welds on these  
3 type of welds are being inspected by the field welding  
4 engineering to verify that they have been done in accordance  
5 with the requirements. PQCI groups for these non-specific  
6 welds verify that the field welding engineering has  
7 performed this inspection and that it is quality involved.

8 MR. LANSMAN: How does he do that?

9 MR. MEISENHEIMER: He looks at the weld and  
10 verifies that the field weld and engineering has signed  
11 off for that weld.

12 MR. LANSMAN: But does he inspect the weld?

13 MR. MEISENHEIMER: He does not do the actual  
14 welding inspection and measure the weld such as this,  
15 because it is not a non-structural weld.

16 MR. HARRISON: Give me an example of a non-  
17 structural weld?

18 MR. MEISENHEIMER: A lug attachment for lifting  
19 or sliding a beam.

20 MR. HARRISON: A total temporary?

21 MR. MEISENHEIMER: A temporary time thing.

22 MR. LANSMAN: That's like a construction type  
23 A thing?

24 MR. MEISENHEIMER: It would be construction  
25 A type welds.

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MR. COOK: Would those be Q welds? Would that be covered under the Q program?

MR. MEISENHEIMER: They fall under the Q program in that we verify when they are welding that they do proper pre-heat, because that's when the greatest amount of damage to the metal could occur.

The field engineering has verified if it has been undercut, if it has -- if there was an arc strike, that that has been repaired, and he signs off for that weld. And the QC verifies that inspection has been done and he looks at -- he just looks at the general quality of the weld.

MR. COOK: Well, then in essence, you are using field engineering to perform a QC function?

MR. MEISENHEIMER: For these types of welds.

MR. WELLS: It is a verification function.

MR. MEISENHEIMER: It's a verification function at that point.

MR. COOK: But these welds are never then inspected by QC people, right, other than the pre-heat?

MR. MEISENHEIMER: The pre-heat is inspected. The QC does look at the weld to see if it has been signed off and inspected by the field welding engineer.

MR. HARRISON: Suppose you have a condition that the base material of that non-structural weld is damaged

1 by a severe arc strike? How is that going to be dealt  
2 with?

3 MR. MEISENHEIMER: If the inspector saw an arc  
4 strike.

5 MR. HARRISON: You just got through saying that  
6 the inspector did not look at it.

7 MR. MEISENHEIMER: He looks at the weld. If  
8 he sees something wrong, okay, he does not do the  
9 detailed weld inspection he does for a structural weld,  
10 actually measuring the welds, size of the weld, if they  
11 are in compliance.

12 That is the field welding engineering inspection  
13 for the inspection of those welds. He does a visual.

14 MR. COOK: Is this a QC program where you are  
15 using field engineers?

16 MR. WELLS: No. It is not part of your program.  
17 It might be in a specific case where we might have to  
18 look at the specific item, but we certainly don't use  
19 field engineers to do quality control work.

20 MR. LANSMAN: Sure sounds like it.

21 MR. WELLS: I say in this specific case.

22 MR. HARRISON: I really have a problem with  
23 you having the welding engineer, who is responsible for  
24 the welding activities in reality looking at an activity  
25 that he's responsible for and saying: it's fine. It's

1 acceptable.

2 MR. WELLS: I think we have to look -- what I hear  
3 Jim say is for those -- they are the non-structural welds  
4 and the QC man does a visual, but he doesn't do a detailed  
5 inspection.

6 MR. HARRISON: Will you respond to that in the  
7 next meeting?

8 MR. WELLS: Yes.

9 MR. LUCKS: We have that as an open item for  
10 a response to the assessment.

11 MR. HARRISON: The reasons I brought it up was  
12 because of the 8222 on pre-heat. I thought when I read  
13 this item, I thought you had fallen back into the same  
14 problem of not inspecting pre-heating.

15 That's how it appears to me.

16 MR. LANSMAN: That's our item 8222.

17 MR. COOK: The real problem is field engineering  
18 doing QC functions.

19 MR. WELLS: Ron, just for the record, this  
20 particular case, we have, but field engineers don't do  
21 our QC functions.

22 MR. HARRISON: Report number 58, on page 2,  
23 the assessment team is notified that the effort to date  
24 has been directed towards identifying those FCN's and  
25 FCR's that are a problem.



1 My question is how do you know until you look at  
2 all the FCR's and FCN's whether they are a problem?

3 MR. LUCKS: There is a potential problem.  
4 This is the phase 1 of the plan where they review all of  
5 the changed documents and separate out the changed docu-  
6 ments that need evaluation.

7 If you would like, I have an overhead, and I can  
8 explain and --

9 MR. HARRISON: What are you calling substantial  
10 problems?

11 MR. LUCKS: This is on page 2 of that second  
12 paragraph.

13 MR. HARRISON: Yeah, the second paragraph. Well,  
14 it's the first paragraph, really. It's identifying those  
15 which are a problem.

16 MR. LUCKS: Sorry, I can't find that correct  
17 drawing. This is on paragraph 2?

18 MR. HARRISON: Paragraph 1.

19 MR. LUCKS: Oh, sorry.

20 MR. LANSMAN: The third sentence at the end.  
21 The third sentence -- the third sentence, I guess.

22 MR. MAJESKI: Basically --

23 MR. LUCKS: The data sort of -- the question was  
24 what are the ones that are a problem?

25 MR. HARRISON: Well, when you read this, it

1 appears that the effort that Consumers has applied has  
2 been towards identifying those FCR's and FCN's that are a  
3 problem.

4 My question is: how do you know whether they are a  
5 problem or not until you look at all of them?

6 MR. LUCKS: That's what they are doing is  
7 reviewing all the changed documents to identify the ones  
8 that potentially are a problem and have to be evaluated.  
9 There is a percentage of documents that they can look at  
10 and if there is no inconsistency on the changed document,  
11 they are clearly okay.

12 The ones that there are inconsistencies on will  
13 then -- there still might not be a problem resulting  
14 from them, but they have to be evaluated to see if there  
15 is potentially a problem.

16 Would you like me to --

17 MR. HARRISON: Are you saying that your effort  
18 has -- Stone & Webster's effort has been directed towards  
19 those that are problems?

20 MR. LUCKS: No. We are referring to Consumers,  
21 Bechtel's efforts. We're referring to their program  
22 for the resolution of the stop work order.

23 MR. HARRISON: But you are in effect doing 100  
24 percent. And when I read this, it doesn't imply that.  
25 That's my point.

1 MR. WELLS: It may be -- just a second.

2 Like I said earlier, I didn't want to spend a lot  
3 of time on this, but phase 1 is to look at every item.  
4 The field engineering group and resident engineering  
5 group basically put those in two piles: those where  
6 they believe there was inconsistencies in communication,  
7 and those that they think may have been inconsistencies.

8 The first check that we are doing from a QA  
9 standpoint is the pile that comes out that says no problems,  
10 we are reviewing that 100 percent to make sure we agree.

11 The pile that there is a potential problem, then  
12 the next step is to go through the phase 2 and do the  
13 detailed reviewing to the drawings, look at those processes  
14 and we are doing that on a 100 percent basis.

15 So everything is being looked at.

16 MR. HARRISON: Okay. On item 58.4. It's indi-  
17 cated that FSO and FRV's have been reviewed, approximately  
18 500 total, 30 percent problems or 30 percent of those had  
19 some type of question related to them and only 6 percent  
20 required any form of corrective action, increasing the  
21 distributions, or whatever.

22 My question is: what kind of problems were detected  
23 with the other 24 percent since there was some type of  
24 problem identified?

25 MR. WELLS: Do you want me to answer that?

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MR. MAJESKI: Well, there is actually two issues here. I'm trying to recollect.

MR. WELLS: I can probably --

MR. HARRISON: I didn't mean 24 percent. I meant the other 94 percent of the 30 percent or whatever. The numbers just are all goofed up. I don't understand.

MR. WELLS: I can't comment on the numbers. I can comment on the process that the first time through we looked at the FCR's and it's clear that what had been asked for approval project in engineering had approved everything together. There was no looking at the process and the approval mechanism that would go in the good column.

The 30 percent in a sense relates to the pile where we couldn't make a direct paper tie that everything had been checked. In other words, we'd asked for approval on three drawings. It was clear it was on two, not necessarily that approval had been given on the third one. That went to the 30 percent of the potential problems.

Then as you look into the details of it, very few of those turned out to be real problems. I think we have written something on the order of 6 NCR's. That is an order of magnitude.

MR. HARRISON: So the 30 percent is potential and the 6 percent --

1 MR. WELLS: I don't know about 6 percent.

2 MR. COOK: That's 6 percent of the 30 percent?

3 MR. WELLS: I don't know. That's not my numbers.

4 MR. LUCKS: These numbers here are very, very  
5 approximate.

6 MR. WELLS: We've written on the total process  
7 to it might be four or eight.

8 MR. LANSMAN: Just in the soils area.

9 MR. WELLS: No. No, total, the whole process.  
10 I don't know in -- specifically.

11 MR. HARRISON: How about at the next meeting,  
12 let's talk about this item in general, but as related to  
13 soils, I want to know if you had 500 total drawings, and  
14 of that total of 500, 30 percent was a potential problem  
15 and 6 percent was a problem, and then I'm assuming the  
16 6 percent -- the 6 percent of the 30 percent, I'm assuming.

17 MR. LUCKS: No.

18 MR. HARRISON: 6 percent of the total?

19 MR. LUCKS: That's my understanding.

20 MR. MAJESKI: Yeah.

21 MR. WELLS: By next time --

22 MR. LUCKS: We have received status sheets  
23 on the program that would update the numbers given  
24 in report 58.

25 MR. HARRISON: On item 58.12, I noted that this



1 item addresses number FCR's on drawings and identifies  
2 16 FCR's totalling 55 pages attached to drawings. And  
3 in this type of situation, you look to -- leads to an  
4 area -- this is an item that the NRC has identified back  
5 to the last -- I know at least two years. We've identi-  
6 fied it in a recent report trying to historically bring  
7 it to the Consumers Power attention, that the corrective  
8 action has been very slow. This coming has not been very  
9 positive.

10 This item really compounds the issue. I understand  
11 that some recent corrective action has been taken or is  
12 going to take place or has taken place to rectify the  
13 situation.

14 I just want to let you know that we are still concerned  
15 that that type of a problem exists after all of the time  
16 that has passed.

17 MR. WELLS: One of the items -- the items that  
18 you are going through before we lift the stop work order,  
19 we have identified open designed related concerns that  
20 may not relate to the FCR issues. One of the items that  
21 will be addressed will be the attachment drawings in addi-  
22 tion to the earlier point that was brought up about the  
23 time limits and prior to lifting the stop work. We'll  
24 have a committed position in the course of corrective  
25 action and that will correct that.

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MR. LANSMAN: Will the corrective action be done?

MR. WELLS: It may not be complete. We know exactly that the first corrective action will be to insure that we are within the programmatic requirements. The second step will be to identify what the ultimate corrective action will be and the plan to accomplish that.

MR. LANSMAN: Well, I don't know if it is the next report or whatever, there are some comments in these reports that you are going to change the procedure on a number of attachments and timeliness.

MR. WELLS: That's what I am talking about.

MR. LANSMAN: If you get that procedure changed, you won't be able to go back to work until --

MR. WELLS: If for example the corrective actions were, we have no more attachments to the drawings which will not be the final one, let's say five or six, it's our intent to have a plan of action with a schedule as to when we would achieve that objective prior to work -- lifting the stop work. At this point, not to say that would be correct, we have to maintain within a program and then go ahead toward the route of correcting any --

MR. LANSMAN: I hate to beat this to death, but a year ago on these items -- on the exact items, I got

1 the same promise, and here we are, a year later.

2 MR. WELLS: You didn't get quite the same.  
3 What we have done, Russ, is address the issue, but I  
4 will lay the cards on the table that we have come up with  
5 a way to call the attachments by so many different names  
6 that we haven't really addressed the cause of that attach-  
7 ment. I think people have tried to be responsible, but  
8 the process was cumbersome. We are addressing it from a  
9 different perspective. We are talking about attachments  
10 here and what you call by -- whether it is an FCR, an  
11 FCN, or a one time deviation, we are going to address  
12 it as a total attachment issue and you'll see the cor-  
13 rective action.

14 Jay, if you like, we can add some more information  
15 to that earlier item on the Standish welding because we  
16 might be able to clear it while we are here, if you would  
17 like?

18 MR. HARRISON: Go ahead.

19 MR. MEISENHEIMER: Okay. Going back to the  
20 Standish issue, on the report it says there was a stop  
21 work. There was not a formal stop work issued on that.  
22 an PQCI inspector discovered and processed that the  
23 design change notice that had been issued by product  
24 engineering was not correct. And he discovered it's  
25 not correct. He notified the fabrication shop that we

1 could not do inspections until we got this item. They  
2 stopped all work because we had in process work --

3 (Whereupon the proceedings continued and  
4 conversation continued while court reporter changed  
5 stenographic paper in machine.)

6 MR. MEISENHEIMER: A non-conformance notice  
7 was issued, an improper document being issued. But it  
8 was --

9 MR. HARRISON: You don't happen to know what  
10 that number was?

11 MR. MEISENHEIMER: I do not have the number  
12 here.

13 MR. HARRISON: Okay. That's all right. So  
14 you really couldn't proceed?

15 MR. MEISENHEIMER: We told them we could not  
16 inspect because the documents were not complete and all  
17 work stopped -- all work stopped on that basis.

18 MR. HARRISON: I think in the future that if a  
19 stop work -- if you say that the activity was stopped versus  
20 a stop work, we really need to make that clear in our  
21 reports because we are very sensitive to the words stop  
22 work. When a stop work comes in, we have to report to the  
23 ASLB Hearing Board. It gives us a lot of grief.

24 So we need to be very clear on the use of the word  
25 stop work versus not being able to -- an activity to

1 to proceed because you don't have a required design docu- 62  
2 ment or whatever.

3 MR. LANSMAN: We were not going to discuss report  
4 number 59, but I think there are some very important  
5 things that happened last week that the NRC wants to bring  
6 up.

7 It was discussed on the first page of report 59, under  
8 assessment: team observations, which was also in report --  
9 in the same report, item 59.5, and it was also report  
10 item 59.18. It has to do with the auxiliary building  
11 crack monitor process or procedure. And one of the items  
12 I guess is that Weiss Jenny did not report a crack that  
13 reached the alert level in the required time limit and  
14 it appears that it did not reach the appropriate personnel  
15 for a couple of weeks yet.

16 In view of all these things on the crack mapping,  
17 I think we would like before we release the hold on the  
18 soils work, I would like Consumers Power Company to please  
19 address this so that we are sure that all the cracks  
20 in the building are on a map.

21 This raises a lot of questions that I'm not sure  
22 of the status of the crack monitoring and also the service  
23 pump -- or I'm sorry, both structures and also the diesel  
24 generator. I mean wherever there are crack monitors.

25 MR. WELLS: At the request to address the crack



1 crack monitoring --

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2 MR. LANSMAN: Well, address it to NRC prior to  
3 lifting a stop work on the soil. Your stop work that  
4 you have right now.

5 MR. WELLS: Oh, our stop work?

6 MR. LANSMAN: We don't have a stop work. You  
7 have a stop work now because of the drawings.

8 MR. WELLS: Yes. On the drawings.

9 MR. LANSMAN: Before you lift that.

10 MR. HARRISON: Before you start your activities  
11 again, we want to make sure that that issue is cleared  
12 up.

13 MR. WELLS: All right.

14 MR. COOK: Let me ask this. When you made your  
15 soil presentation, you had indicated that you are going to  
16 give up your past habit of closing items based on a ver-  
17 bal commitment. Did you say that you would then close  
18 it after the action has been completed or when the action  
19 has started?

20 MR. LUCKS: Well, for example, the case that  
21 was discussed at the last public meeting to change the  
22 drawings, we would not close out the item till the  
23 drawing was changed.

24 MR. COOK: Okay. So you will not close it  
25 until the action is actually completed? Will any of your

1 procedures, will they be modified to show this?

2 MR. LUCKS: Yes.

3 MR. COOK: Okay. For the reviewing of the prior  
4 reports through, I think it said report 30 where you're  
5 closing them out on verbal, had you found any that you  
6 should not have closed out, and how are you documenting  
7 that?

8 MR. LUCKS: We had come up with five items that  
9 did not have complete verification of the action on our  
10 part.

11 We also found, of those five items, that in one  
12 item we had been given a verbal commitment and the action  
13 had not been taken.

14 So one item, action had not been taken, a total of  
15 five items we had to do -- we had to go back and verify  
16 that the action had been taken.

17 MR. COOK: Now, is that going to be documented  
18 in your --

19 MR. LUCKS: Yes. You will notice that in this  
20 week's report that we are carrying now five items out of  
21 that review 30 through 57.

22 MR. COOK: Okay.

23 MR. LUCKS: By the next public meeting, we'll  
24 have completed the review 1 through 29 and they'll also  
25 be included.

1 MR. COOK: Okay. Will you incorporate your  
2 slides in your --

3 MR. LUCKS: Yes.

4 MR. COOK: Okay.

5 MR. LANSMAN: I just have a general -- I have a  
6 general comment. I received the report yesterday since  
7 I have not been in the office for a couple of weeks. It's  
8 called the evaluation of change and non-conformance  
9 documents independent assessment of underpinning.

10 Will the NRC routinely -- if you, Webster, generate  
11 these additional reports, will we routinely receive  
12 copies?

13 MR. LUCKS: Not routinely. It's part of  
14 our procedure that you receive them.

15 MR. LANSMAN: Were there any ones prior to this  
16 one on special reports?

17 MR. LUCKS: There might have been very short  
18 reports that we have attached to the weekly report. I  
19 can't think of any other freestanding documents.

20 Our initial intention was this would be attached  
21 to the weekly report, but it just became too bulky and  
22 we issued it as a freestanding document.

23 MR. LANSMAN: I haven't reviewed it. I would  
24 like to discuss it the next time.

25 MR. HARRISON: The next monthly meeting we'd like

1 to go into this report and talk with you about some --

2 MR. LANSMAN: Yeah. There are a lot of interesting  
3 things in it.

4 MR. HARRISON: Let me -- I have a few general  
5 comments, and then we will move on to the CIO area.

6 I want to just point out that Stone & Webster  
7 continues to identify problems which all seem to relate  
8 to various delays caused by lack of planning or coordina-  
9 tion of activities, lack of action or taking positive  
10 action in given areas. To me, this indicates a con-  
11 tinuing lack of attention to detail, and in general, the  
12 management of this activity still needs improvement.

13 Mr. Mooney stated a few minutes ago -- earlier in this  
14 meeting that Consumers Power did not wish to act expeditious  
15 ly in resolving issues. They wanted to make sure they do it  
16 right.

17 And in regards to the statements that Consumers Power  
18 Company offered in the newspapers yesterday about the  
19 NRC being the delay, I would like to simply say that  
20 we also like to act expeditiously, but we also like to do  
21 the job right the first time.

22 I would expect Consumers Power Company to act on this  
23 issue and to act responsibly and to stop passing the buck  
24 and placing the blame on the NRC.

25 That's all the comments I have based on the soils.

1 MR. LUCKS: Could I have one clarification?

2 Today we reviewed reports 55 through 58?

3 MR. HARRISON: Yes, sir.

4 MR. LUCKS: We prepared 56 through 59 and next  
5 month it will be 59 through the previous weeks report.

6 MR. HARRISON: Yes. I would like to stay  
7 within the calendar month. It makes it a little easier  
8 for us to manage than trying to go to a week over into  
9 each month. Stay within the calendar as much as practical.

10 MR. LUCKS: Okay. What essentially will be --

11 MR. HARRISON: It will be 59 through --

12 MR. LUCKS: Through the report of the preceding  
13 weeks?

14 MR. HARRISON: Yes.

15 MR. LUCKS: Yeah. Okay.

16 MR. HARRISON: Okay.

17 MR. COOK: Provided, on the same token, if we  
18 have one of your recent reports and it is addressing the  
19 issues that is covered by the previous three reports, we  
20 are not going to ignore, that we don't have this -- these  
21 notes in our protocol.

22 MR. LUCKS: Yes.

23 MR. AMORUSO: Before beginning the presenta-  
24 tion on the construction implementation overview, I'd like  
25 to identify the people from Stone & Webster who will



1 participate at the table. On my left is Mr. Bob  
2 Burns. He is the Assistant Corporate Quality Assurance  
3 man.

4 Next to Bob is Mr. Stan Baranow, the CIO Program  
5 Manager.

6 My name is Paul Amoruso, and I'm the Project  
7 Manager.

8 During the last meeting, we reviewed activities of  
9 the CIO program covering the period from April 1983  
10 through September. Today the presentation will cover  
11 activities that occurred in October.

12 There are three main topics we'll cover. We'll give  
13 a rundown of activities that occurred during the month.  
14 We'll give a status of observations, hold points and non-  
15 conformances and then we'll highlight some of the main  
16 issues of the month.

17 First off, we'll start with a rundown of activities  
18 during the month. In our hold construction complete  
19 program, CCP was approved. Also five areas of the plant  
20 were released by the Nuclear Regulatory Commission for the  
21 start of phase 1 statusing and verification. Due to  
22 stop work orders that were issued by the quality assurance  
23 department for concerns about field -- to control the field  
24 changes, this effort was delayed. Because of the delay,  
25 the CIO effort continued to focus in monitoring management

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meetings, checking the prerequisites to the phase 1  
statusing and verification and evaluating construction in  
the quality assurance training program.

A summary of activities that we covered during the  
month are shown here. There was 31 management meetings  
monitored. These included meetings of the management  
review committee daily and biweekly staff meetings,  
meetings of the team leaders for the CCP and meetings of  
the groups out of the teams.

What we were checking in these meetings was the  
attention being paid by management to current problems  
such as the control of field changes and training records,  
as well as the effectiveness of the corrective action that  
was being taken.

From the meetings, management showed an openness to  
discuss problems, showed an intent to take whatever time  
was necessary to come up with proper solutions, and showed  
a professional integrity by implementing necessary correc-  
tive action.

The next item: we spent 550 hours of checking pre-  
requisite status and verification activities. What we  
were looking for here was was there any problems that had  
gone undiscovered, and also potential weaknesses that we  
could incorporate into our program to check when the actual  
work commenced.

1           What we've obtained from this association with the  
2 teams and the management that's running these activities  
3 is that they project an attitude of desire to do the  
4 job meticulously and correctly and that is an important  
5 attitude to start off with.

6           There were three training presentations evaluated.  
7 These involved the crafts. Previously we had looked at  
8 the formal training that was presented to non-manual  
9 people. The low number of presentations that were observed  
10 was due to the stop work and also due to the fact of normal  
11 dropoff in classes which occurs as a training program  
12 year's completion.

13           What we checked here was whether the presentation  
14 was following approved lesson plan. And in these three  
15 cases, they were. And also was the information being  
16 conveyed effectively to the people in the class, and it  
17 was.

18           The next item. 200 -- 2,110 training records were  
19 checked. And what we were looking at here was a continua-  
20 tion of what was discussed at our last meeting as to whether  
21 the training records were being maintained in accordance  
22 with the procedures.

23           Problem areas were found here. And I'll discuss  
24 those later.

25           770 hours were spent updating the checklist. As I

1 discussed at the last meeting, we had 109 checklists  
2 prepared to follow the activities of the CCP. And that  
3 we were going to have to maintain those current. This  
4 is that effort.

5 Out of the 69 PQCI's that are associated with the  
6 CCP, 37 of 1,000 are ready for issue now, 32 are in various  
7 stages of revision.

8 The important point is that out of the 37 that are  
9 ready for issuing today, that includes the PQCI's or  
10 the checklists for the PQCI's that are needed to cover  
11 the five areas that have been released for status and  
12 verification.

13 As we mentioned at the last meeting, there are three  
14 areas that are within the CIO scope, but are outside the  
15 CCP, and those areas were the special system interaction  
16 program, the nuclear steam supply system, and the  
17 heating ventilation and air control program and HVAC.  
18 The opportunities to monitor those activities during  
19 October were limited.

20 In the SSIP, the special system interaction program,  
21 the assessments that we had done in the previous months  
22 showed no significant problems. Because of that, our  
23 frequency of verification was decreased. Now, the stop  
24 work orders for the control of field changes and also  
25 problems in the nuclear steam supply system with regards

1 to handle welding and bolting problems, and in the HVAC  
2 program, fill-up and welder procedure qualification  
3 problems, our opportunity to assess these were limited.  
4 Nevertheless, we did look at 36 HVAC training records.  
5 We did check them with compliance procedures and they  
6 checked satisfactorily.

7 The next item was a witnessing of 90 specimens  
8 of welds from the HVAC system. A little explanation is  
9 probably needed here.

10 The original procedures, welding procedures in the  
11 HVAC program were developed by the Fulton Company, a sub-  
12 contractor. Those procedures were necessarily restrictive  
13 which caused problems qualifying welders. The procedures  
14 were changed to be more feasible and at the same time  
15 retain engineering soundness.

16 The question that came after that was done was: what  
17 about the welds that had been done under the Fulton  
18 procedures.

19 So what was done, 90 specimens were cut out of the  
20 system, the welds were taken down to Jackson and tested,  
21 and the results of those tests showed that the strength was  
22 a factor of 8 to 10 times that which was required.

23 The other item that was done that is not shown on  
24 this chart is in the nuclear steam supply system. There  
25 is a training program that has been recently implemented for



1 the suborne (sic) hanger training and we have checklists 73  
2 now in place and being used to evaluate that training  
3 program.

4 The next topic that I'll discuss is the statusing  
5 of observations, non-conformances and hold points.

6 The observation is as we discussed at the last  
7 meeting and as we use it in the CIO program, covers  
8 five situations. And there are non-conformance, a  
9 deficiency, a request for action, a request for clarifica-  
10 tion, or information, and a request..

11 When an observation is made by the CIO team, it's  
12 reported in the CIO weekly report and it's tracked by  
13 those weekly reports until the item is satisfactorily  
14 closed. If the observation is a non-conformance, a non-  
15 conformance identification report is also prepared.  
16 The abbreviation being NIR.

17 The summary of open observations is shown here.  
18 There were two observations made in October. November,  
19 31, and 32. 31 involved four non-conformances and related  
20 to training record discrepancies with quality assurance  
21 personnel.

22 These were discussed at the last meeting. At that  
23 time, we stated that it just turned up and they had not  
24 been included as an observation because the report hadn't  
25 been issued that covered that period. That's what 31

1 is.

2 32. The discrepancies found were similar to 31  
3 in training records, but dealing with the construction  
4 people. 30 remains open, and that was discussed at the  
5 last meeting. And that is the need to review vendor  
6 equipment verification program.

7 The non-conformances that have been reported from  
8 those 32 observations are shown here. The first six from  
9 the 32 observations.

10 Number 1 and 5 are closed. 2, 3, 4 are the ones  
11 that relate to the quality assurance training records.  
12 6 is the one that relates to the construction team training  
13 records.

14 Number 7 was just recently issued and that will be  
15 picked up at the next meeting. We'll cover that.

16 But it's a similar problem in training records, but  
17 the people involved are the field engineering, field  
18 procurement, the general construction, general service  
19 organization and subcontractor or management group.

20 The hold points that are open that have been designated  
21 by the CIO as shown here, there are four of them. 6 and  
22 8 deal with the training records. Number 5 is the vendor  
23 equipment verification program, and the hold point is  
24 that the program should be reviewed and in place prior  
25 to the start of actual work, which is the phase 2 part

1 of the CCP.

2 6 and 8, the hold points are that those training  
3 records have to be corrected before the people that were  
4 involved with those records are used in the CCP.

5 Number 7 is the evaluation of what management reviews  
6 the results of phase 1, which is a facet of the CCP  
7 program itself.

8 6 and 8 are good examples of how the CIO program  
9 controls, insuring that the proper corrective action is  
10 taken before the process proceeds.

11 What the CIO team does is to go out with checklists  
12 and on these checklists are the conditions that are clearly  
13 stated and can be easily answered as to whether it exists  
14 or whether it doesn't.

15 These checklists are then turned back to supervisors  
16 who evaluate them, determine the significance of what is  
17 noted. If it's significant, an observation is generated  
18 that goes on the weekly reports and then is tracked  
19 until it's closed.

20 If the observation affects downstream activities,  
21 and we need to be sure before we start those downstream  
22 activities that the proper corrective action has been  
23 taken, we institute a hold point and that's what has  
24 been done in the case of 6 and 8.

25 The next topic that I'll discuss is the highlights

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for the month. The first one is the stop work order.

The original plan for the CIO program to check phase 1 status and verification was to go out on the field and verify that the tic files and the documentation held at the field document control center agreed with the master register from the project engineering control center.

We still intend to do that check and that check will show if the corrective action is now ongoing has been effected.

In addition to that, we have developed checklists that contain attributes from the procedures that are now being used to resolve the differences between the project engineering and the field registers. Those are now being used to assess the effectiveness of the ongoing corrective action.

The next item involved an anonymous phone call. An anonymous phone call was made to the CIO's office on October 26th alleging that some welds had been done outside of authorized procedures. The alleged problem was that there were numerous carbon steel socket welds in the turbo and auxiliary building and they had been welded using stick welding, which is a shield and metal lock processing and then because of undersizing or other repairs, were then corrected, using tig welding.

1           This call was reported to the Nuclear Regulatory  
2 Commission and Consumers Power and the CIO conducted an  
3 investigation. A weld was selected in one of the areas  
4 of concern, a socket weld which had been repaired. It was  
5 determined that yes, a stick welding had been done and the  
6 repair had been done with tig welding.

7           We then went into the ASME Code that addresses  
8 welding as well as the Bechtel technical specifications  
9 and both those authorized the use of either stick welding  
10 or tig welding, either separately or together.

11           So in summary, what the phone called alleged was the  
12 sequence of welding was, in fact, true, but the procedure  
13 that was used was approved and in compliance with the  
14 ASME codes and the technical specifications.

15           The next item is the training records. The problems  
16 we are finding in training records are administrative in  
17 nature. The Consumers Power Company has issued quality  
18 assurance -- quality action requests for the items that  
19 concern the quality assurance people.

20           The Consumers Power has also extended their corrective  
21 action to the qualification and certification records of  
22 all inspectors. The CIO concurs in that action being  
23 taken by Consumers Power.

24           We expect to receive similar replies on the construc-  
25 tion people and also the recently promulgated non-conformanc



1 that refers to field engineering and field procurement  
2 and etc.

3 The staffing status: at the last meeting, we went  
4 over the plans for staffing the CIO team and I said that  
5 we'd have 21 people assigned to the team by the end of  
6 October and would then add people as we needed them too,  
7 depending on the scheduled activities.

8 Because of the stop work order, we modified that  
9 plan. There is 17 people attached to the team and we  
10 will add additional people as the startup schedule  
11 dictates.

12 There were a couple of questions during the last  
13 meeting that referred to craft training and to the adequacy  
14 of the training matrix. As I discussed earlier, we ob-  
15 served three craft training sessions and they were satis-  
16 factory.

17 The craft training records are now being assembled  
18 and when they are, we'll do a check of those records.  
19 The adequacies of the training matrix, the evaluation is  
20 still ongoing.

21 What was checked last month included -- did the  
22 matrix cover all applicable procedures that were being  
23 used in the CCP and also some of the job positions were  
24 sampled to evaluation if the level of training that was  
25 prescribed was adequate.

1           Now, there are some 202 procedure documents that  
2           apply to the CCP. All but 15 of those were addressed  
3           on the matrix. The other 15 were determined to be either  
4           not applicable or were recently promulgated and have since  
5           been added to training requirements.

6           We took 50 boxes off the matrix to evaluate the  
7           level of training prescribed. Of the 50, 4 of them in our  
8           assessment should have been of a higher level.

9           What we are talking about is a 0 means no training  
10          required. These four have zeros. But what we are representing  
11          is that these go to 2, which requires reading this increase  
12          in level of training is of an administrative nature and  
13          it's not of a technical necessity nature.

14          We intend to continue this sampling, and we will have  
15          additional reports next month and also appropriate reports  
16          will be made.

17          That concludes the formal part of the presentation.

18          MR. HARRISON: We only have very few questions  
19          on the CIO.

20          The first question has to do with a problem, which  
21          as you recall at the last month's meeting, we had an  
22          action item that required the maximum part on Webster and  
23          Stone to handle, at Consumers Power Company to look at  
24          the positive ways of closing out items that were identified  
25          in the daily meeting.

1 Mr. Lucks gave us a rundown on what they've done in  
2 reviewing the reports for this time period. Report 80  
3 number 18 has identified a problem that resurfaced after  
4 it was closed out in the CIO related to welding.

5 It appears that a welding criteria issue was identified  
6 in CIO report number 9 dated 8-5 through the 12th. Where  
7 the item was deemed open, the item in report number 11 was  
8 closed based on the promise that MPQAD was going to do  
9 something.

10 In report number 18, for the period of 10-10 through  
11 the 14th, the item was reopened. Since we discussed a  
12 positive tracking system at the last meeting and we were  
13 assuming that this would also be picked up by the CIO,  
14 I guess my question is why this item was closed and  
15 then had to be reopened?

16 MR. AMORUSO: Yes. The original item we classi-  
17 fied as a request for clarification, that type of an ob-  
18 servation. What we recommended -- and there was nothing  
19 wrong with their way of doing, putting the welding in the  
20 various PQCI's except it had the potential for, if a change  
21 was made, that it wasn't going to be affecting the PQCI's.  
22 And our recommendation was on eliminating it from multiple  
23 PQCI's and just leave one document where all of that is  
24 obtained. It was a potential. They verified it and said  
25 that they were going to condense.

1 I forget if it was one or two. And that was satis- 81  
2 factory with us. It was the recommendation of the -- a  
3 potential problem.

4 We asked for clarification. They said what they were  
5 going to do was, in fact, lessen that potential and we  
6 closed it and then there was a change. And I'm not sure what  
7 it is called. Consumers would have to answer it, where  
8 they were going to do it in two instead of one. And that's  
9 why we readdressed and clarified and keep checking it.

10 Again, it was a potential problem and not a real  
11 problem.

12 MR. HARRISON: Okay. But since you have insti-  
13 tuted this definition, I think there are five categories,  
14 that item at that time was not categorically identified  
15 as a concern or --

16 MR. AMORUSO: In our system, it was not.  
17 It was classified as a request for clarification, but we  
18 did not state it on the report. That's correct.

19 MR. HARRISON: Okay. I just want to make sure  
20 that whatever this -- how were the items classified, even  
21 if you are suggesting something to them and based on a  
22 promise that they are going to take some type of action  
23 and you close it out? I see nothing wrong with that.  
24 My concern is that they evidently did not do what they  
25 implied they were going to do; is that correct?

1 MR. AMORUSO: I'm not sure because the ques- 82  
2 tion becomes one of timing. This was a recommendation,  
3 they said they were going to do it, and I'm not sure --

4 MR. WELLS: We did what we said, but we didn't  
5 do a good enough job or far enough. Right now we are  
6 looking at specific PQCI's, the electrical PQCI's that  
7 have welding attributes in them and we are taking them  
8 totally out and comparing them with the welding PQCI's.

9 We thought we had addressed the question, but in fact,  
10 we did not go far enough. There is no way around it and  
11 we practically issued a stop work on me for the whole  
12 group until we get that cleared up, and that's accurately  
13 being cleared up now.

14 I think we're taking a broader look now. We kind  
15 of addressed the specific concern and ultimately we  
16 should look more broadly at times.

17 MR. HARRISON: Well, then when I look at Stone &  
18 Webster's report number 18, since you reidentified this  
19 item, you said -- I think you start out on -- you start  
20 out on page 3 identifying a welding criteria as a concern  
21 relative to -- I don't see a very clear status of what  
22 this item really is.

23 In other words, you've established a category that  
24 would list five various categories that this item should  
25 fall into. And when I look at this report, I don't see



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what category of the five it falls into.

MR. AMORUSO: Right. It was an observation that was closed. It was not reopened as an observation.

MR. HARRISON: What was it reopened as?

MR. AMORUSO: What's being stated here is that it is additional information from what we reported back in report number 11 and we are clearing that up and saying that basically we will track it and if there are any additional changes, we'll keep it updated in the report.

That was what was intended.

MR. HARRISON: Do you have an item that is an information or clarification type of item?

MR. AMORUSO: Yes. Yeah, it started with report 9.

MR. HARRISON: What I am saying is in 9 it was identified as being an open item --

MR. AMORUSO: That's correct.

MR. HARRISON: And in 18, you identify it as an item, but you don't clarify -- you don't classify the item.

MR. AMORUSO: That's correct, because that first paragraph, report number 11 was -- we stated was closed, but the information we gave on that was that it was closed.

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In other words, we requested clarification. They gave us clarification, but some of that information was -- as they went through it, they changed what they were going to do and we're trying to be sure that the record is straight, that there was a change from what we said, what we closed it out as.

MR. HARRISON: But don't you have a category that this should have fallen into, information or clarification or something?

MR. AMORUSO: No, because we were not asking for information at the time.

MR. HARRISON: But you are providing information.

MR. AMORUSO: Yes, to you. That's correct, or to the record. But it is not a request for information or a request for clarification.

MR. HARRISON: You don't have a category like they do in the soils where you just provide information?

MR. AMORUSO: It wouldn't be an observation.

MR. HARRISON: Okay. It would not be an observation.

MR. COOK: Okay. As I understand it, this particular item -- so when there are changes of specifications, they don't get incorporated? There is no

1 mechanism insuring that all the PQCI's that are affected  
2 by a given specification change are indeed the PQCI's  
3 being altered to reflect that change; is that correct?

4 MR. WELLS: I'm not sure.

5 MR. AMORUSO: On a checklist that we use?

6 MR. WELLS: One of us -- go ahead.

7 MR. AMORUSO: You'd better.

8 MR. WELLS: The issue, Ron, is that we have --  
9 the way the PQCI's have been structured -- for example,  
10 in electrical, there will be a section in electrical  
11 PQCI's and in welding, if you happen to be looking at the  
12 conduit support or a raiseway support, there is also a  
13 welding PQCI. The potential that has been raised is  
14 that you've got PQCI's that can cover essentially the  
15 same parameter, a welding parameter. There is a potential  
16 to get them out of synch.

17 That in fact we found has happened, not that -- it  
18 hasn't necessarily boiled down to the fact that one of  
19 them is wrong, but you end up with different kinds of  
20 instructions to the inspector. If you happen to have  
21 one person that may be trained and two PQCI's and they are  
22 not just neatly matched -- the specific case came up here,  
23 as we went back and looked at PQCI's after the concern  
24 was raised in HVAC, in the setup inspection, and then  
25 after again looking back through all the PQCI's on pre-

1 heat to make sure that everything said the same thing, and 86  
2 we found some wording differences.

3 So we said: let's just stop, pull out the stuff where  
4 you have a potential for saying something slightly dif-  
5 ferent in one PQCI than the other, because you could  
6 miss -- if you didn't watch very carefully, and someone  
7 is thinking welding, he might not think electrical PQCI's.

8 MR. COOK: Okay. Well, let me go back on this  
9 a little bit. Do you have a mechanism, if you change the  
10 basic specification for welding, that you would be able  
11 to identify all PQCI's that would be -- that had their  
12 basis on that specification, could you identify all those  
13 PQCI's and reflect the change of the text specs in all  
14 the affected PQCI's?

15 MR. WELLS: You could. The PQCI's identify the  
16 specification drawings, whatever, on which it's based.  
17 So you can do that.

18 What happens is that you have different PQCI's  
19 and different disciplines, and so you may have kind of a  
20 different, a different version of the changes because  
21 there are different people doing it. It isn't that you  
22 wouldn't catch it. You'd catch it because of the process  
23 that we do have them tied directly to the specs.

24 MR. COOK: Okay. I've got another question.

25 On these reports, they address electrical and instru-

1                   mentation. What about your other disciplines?

2                   MR. WELLS: We are looking at all those now.

3                   MR. HARRISON: Including something that would be  
4 other than welding?

5                   MR. WELLS: We are looking for any kind where  
6 there is duplication.

7                   MR. GARDNER: In regards to the specifications,  
8 it was identified in report number 9 and then there was  
9 some information given in report number 11, and based  
10 on the information, stated -- Webster closed the item.

11                   Under your current practice, do you intend to handle  
12 items of this same nature in the same manner?

13                   MR. AMORUSO: Now, again, there was a request  
14 for verification and there was originally more recommenda-  
15 tions as a potential problem.

16                   MR. GARDNER: Let me say I don't agree with the  
17 method that you used in handling this. I think that a  
18 potential problem is by itself a problem.

19                   If you identify something that can become a potential  
20 problem, it's more than just an observation or request for  
21 information. And I think as a third party or as a reviewer  
22 or whatever, it's incumbent upon you not to parrot the  
23 person that you are reviewing actions, not to -- in other  
24 words, not to reproduce what their intent is, that you  
25 verify their actions, that you take steps to second check



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and, too, on your own, independently assess the actions that they take.

And I think it's unsatisfactory to close an item of this nature in this manner.

MR. AMORUSO: Okay. First of all, it wasn't parroted. We had evaluated it and determined that, in fact, by reducing it to a couple of procedures, that it was satisfactory.

MR. GARDNER: But what you are doing is you are parroting what they say.

MR. AMORUSO: You didn't let me finish. And the second thing is we would have tracked -- we would have checked that, in fact, it was in fact put in the two procedures that they said they were going to do.

MR. GARDNER: But you closed the item and you were going to track it. How were you going to track it then?

MR. AMORUSO: Well, as an example, report 18. It says -- here is a change. This is a change. Now, here it is, and it says that we'll track this.

MR. HARRISON: I think the purpose of us identifying at the last meeting a problem with the tracking system, where you are going to close an item based on a good faith effort, as you're told Consumers Power Company is going to do something is just not sufficient is what we are saying.

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MR. BURNS: I would like to make a comment.

I think you are -- I wouldn't say we are overreacting to this, but nonetheless, when we were making a suggestion and a recommendation to Consumers Power, if we believe the recommendation is one that related to compliance, we are going to make that item that we will track. We will categorize the item in accordance with the plan that we played out at the last meeting and we'll track the item to closure.

In this particular instance, we were making a suggestion and a method to improve the overall process. Now, in -- now they are in the throes of looking at that, and therefore, I think we did the appropriate thing here.

Every suggestion that we make should not and cannot be tracked as a non-conforming item.

MR. HARRISON: No. We are not saying tracking it as an non-conformance.

MR. BURNS: It should not be tracked as an observation beyond we seek and we give them some advice here on a matter that was not a problem at the time that we identified it. We simply indicated that the more procedures you have that duplicate the same information, the more possibility you have to make a mistake.

At that point in time, you have not corrected a statement, we are simply indicating that when you have

1 duplication, the chance for error is greater. 90

2 MR. HARRISON: I think our main concern is  
3 let's for a minute pretend that that operation is in phase  
4 2 and actual work is going on and you come up with a  
5 concern or a suggestion and Consumers Power is saying that  
6 if you don't do something, this could be a major problem.  
7 And you are into this now three months and they have  
8 nothing to be done and they are actually out there welding to  
9 criteria which could have been incorrect. It could  
10 cause quite a major problem.

11 MR. BURNS: If we believed there was a potential  
12 for a major problem in either phase 1 or phase 2, I don't  
13 think the phase is critical to what our reaction would  
14 have been and then we would have listed the item  
15 to a higher category and tracked continuously.

16 Even if the item fell off the list, which it did this  
17 time, the fact was the CIO personnel who were observing  
18 that are continuing to monitor what was happening in this  
19 area.

20 MR. AMORUSO: If there is a concern on the  
21 team, then everybody is fine-tuned to it because they have  
22 identified it as a potential problem, they have probably  
23 seen it and everybody is honed in and looking at it pretty  
24 closely.

25 MR. GARNDER: There is another -- it also gives

1 the NRC -- if you open an item in August and you close  
2 it in August and then in October or November there is a  
3 stop work issued on the same item, we are relying upon  
4 you to do that third party function, and yet when we  
5 see something identified in August, closed in August, and  
6 then a stop work issued on the same item because sufficient  
7 actions weren't taken, we don't get the warm feeling that  
8 we like to have. I don't, speaking for myself.

9 MR. BURNS: Well, I think the open -- in response  
10 earlier that we are not going to close open items until we  
11 see the action completed. Now, I think earlier there  
12 was -- we indicated that there was some practice where  
13 over based on the response, there was a closure.

14 We identified an item as open and we require some  
15 corrective action. We are going to hold that item open  
16 until we believe we have the safety.

17 MR. GARDNER: That's why I asked if this would  
18 be handled in the same way today in beginning my remarks.

19 MR. BURNS: In this particular observation of  
20 this particular item of discussion, I think it would have  
21 been handled the same way because there was no evidence  
22 that this was leading into a problem.

23 MR. HARRISON: Well, you understand what  
24 Stone and Webster is doing, but looking at it from the  
25 perception of one of the commissioners or someone in

1 Washington trying to simply sit down and read the Stone  
2 & Webster Seattle report to get a feeling for what Stone  
3 & Webster -- how they are controlling what's going on,  
4 they read a report as -- I am going on -- reiterating  
5 what he said. You open an item, you close an item based  
6 on something that MPQAD is supposed to do, whether action  
7 was completed in part or whatever, and the item then is  
8 reopened and subsequently Consumers Power Company issues  
9 a stop work order, it looks like something is not working  
10 as far as the paper trail goes.

11 It just doesn't look proper to us at all.

12 MR. WELLS: Jay, can I comment for just a  
13 minute?

14 I'm not saying good or bad, but let me make sure the  
15 processes under way is understood. The concern was raised,  
16 or at least a suggestion, and we started the process of  
17 going through PQCI's, but we are doing it on more of --  
18 on the basis of a more normal approach. When we revised  
19 them, we looked for these kinds of things and we were  
20 marching down to meet their recommendation after the  
21 HVAC inspection and the concern on setup was raised.  
22 We went back to make sure that we picked up everything  
23 and found that we'd better expedite the effort that we  
24 had under way, because here we had a potential area for a  
25 miss. So that's why we issued the stop work.



1           Let's freeze the use of these until we get all the  
2 information in and we will continue our program in a more  
3 expeditious basis. We should have -- I'm not trying to  
4 come up with an alibi, but we were moving towards the  
5 recommendation. We didn't get there fast enough. I don't  
6 know if that helps.

7           MR. HARRISON: I guess our bottom line on this  
8 is one major purpose of the third party overview is  
9 a confidence builder. Something like this does not build  
10 confidence, and we feel, as Ron said earlier, that warm  
11 feeling is just not there. We are just not comfortable  
12 with it.

13           We'll talk about it at the next meeting. You guys  
14 analyze and discuss it at the next meeting.

15           The second part of that is the question for Consumers  
16 Power Company. I'm a little curious that a problem was  
17 identified in August, early in August and that it was re-  
18 identified in report number 18 and -- in the early part  
19 of October, but you didn't take the stop work effort  
20 until 11-3.

21           So some three weeks would have gone by. Should you  
22 have been performing the CCP, it could have got in a lot  
23 of trouble trying to start your new program.

24           MR. WELLS: Potentially what we found when we  
25 looked was not necessarily the people or the guys were

1 even wrong; they weren't consistent. I don't think between  
2 the two they were as clear as they should have been.

3 That one -- there is nothing to say other than we  
4 should have acted more expeditiously in looking across  
5 the board.

6 MR. HARRISON: Okay. I would hope in situa-  
7 tions like this in the future that the timeliness in action  
8 by your company is going to be a little more expeditious  
9 and that the management judgment used will be a little  
10 more positive.

11 MR. WELLS: Okay. I assure you it will, Jay.  
12 Our problem was we weren't smart enough to think broadly  
13 enough. We took corrective timely action where we  
14 thought it applied and we didn't look far enough.

15 MR. HARRISON: I have one question on report  
16 number 20, page 3.

17 Question is directed to Consumers Power Company.  
18 A statement made by Mr. Palmer that all inaccessible  
19 items do not have to be completed, evaluated for phase  
20 1.

21 MR. WELLS: Yeah. That's -- yeah. I'm familiar  
22 with the statement.

23 MR. HARRISON: I guess that's not our under-  
24 standing of the CCP phase 1. You are not -- you are  
25 going to do this in phase 2 or you are not going to do it

1 at all?

2 MR. WELLS: No. We are certainly going to do  
3 it. That comment was tied to an understanding that  
4 really is in the area of releasing for new work. In  
5 other words, if it is an inaccessible attribute that we  
6 can't get to now, it is our understanding that we wouldn't  
7 have to address that item before we could say that we're  
8 done with all the accessible attributes in this area,  
9 and their statuses.

10 It was more at the work release point that that  
11 comment was handled.

12 We certainly know we have to justify all the accessible  
13 actions.

14 MR. GARDNER: But before you could start phase  
15 2 on the particular module or area, you have to complete  
16 phase 1. Phase 1 is that you QVP for that area or that  
17 module in doing the QVP. You have to perform reinspec-  
18 tions on both accessible or inaccessible items; therefore,  
19 I can't understand how you can go into phase 2 without  
20 doing that and then --

21 MR. WELLS: I'll go back and look at that again.

22 What was the reference on that?

23 MR. HARRISON: It's on report number 20, page  
24 3.

25 MR. WELLS: We understand.

1 MR. HARRISON: The statement really-- just when  
2 we read it, we were totally buffaloed. We don't understand  
3 what the statement means.

4 MR. WELLS: That was a report of meeting kind of  
5 thing.

6 MR. HARRISON: It was a meeting, October the 25th,  
7 1983 between the CIO and Consumers Power Company.

8 MR. WELLS: Yeah.

9 MR. HARRISON: I have one other item that is a  
10 little aside from the CIO, but I want to bring it up in  
11 this meeting.

12 There is an area of great concern by the NRC on  
13 construction deficiencies in reporting 50-55-Es.

14 I with some of my people went to Ann Arbor yesterday.  
15 We had a meeting with Consumers Power Company and Bechtel.  
16 We looked at the original cable evaluation problems that  
17 occurred in 1980 and it appears at that time that Bechtel  
18 made a judgment that reportability of the cable stop work  
19 issue was not necessary. The item was deemed not report-  
20 able.

21 In talking with Consumers Power Company people  
22 present, there is no documentation that any review was  
23 done by Consumers Power Company. This same issue, speaking  
24 on it in more recent terms, when substituted cable that  
25 are installed in containment, you have eight unqualified

1           incorrectly installed cables. It's reported on an NCR           97  
2           on 9-9-83 and on a scheme report number 100 initiated on  
3           9-23-83, identified as not reportable and further evaluation  
4           is needed on 10-3-83, and it is also noted on that report  
5           that a Bechtel response was due on 10-31-83.

6           In the meeting yesterday, Bechtel has not completed  
7           their review, and the bottom line is that this is obviously  
8           a reportable condition. To us, when we look at this report,  
9           we would think that the reportability is so obvious that  
10          the reporting should have been immediately.

11          You are now 60 days past the reporting which should  
12          have at least been potentially reportable. This was  
13          not done.

14          And if you look at the report and you look at the  
15          justification of the evaluation, the statements A, B and  
16          C, I can't tell who signed this thing or who it's for.  
17          Maybe one of you fellows can help.

18          MR. WELLS: Okay. The signature is Al Barrens.  
19          It's for somebody on Barrens' staff. It's Consumers MPQAD.

20          MR. HARRISON: If you look at the justification  
21          of evaluation statement --

22          MR. WELLS: Excuse me, Jay. There are two  
23          blanks in there. That's in block 9. Down in block 10,  
24          which is the justification evaluation is -- that's also  
25          both Consumers people, but Pete Jacobson, who is on Mr.



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Barrens' staff, so they are all organizationally in line.

MR. HARRISON: Still MPQAD?

MR. WELLS: Yes.

MR. HARRISON: Could I have that back, please? I'll basically tell you what it says. If you look at the statements A, B and C, this is not an immediate safety concern, it may not be an immediate safety concern, but it is definitely a potentially reportable item that you have identified only eight schemes of cable that were pulled with potentially reworked cable.

That statement just really blows my mind. First of all, the second statement is to rework cable is only a miniscule portion, the rest of the cable is being fully qualified with the rest of the material, and thirdly, that that is qualification information that demonstrated that rework area can tolerate for this type of cable, there is no documentation.

Secondly, we have got a portion of cable that a repair was made on, and to say it's only a miniscule portion, any portion of a cable -- it would only be as strong as its weakest link, and that statement just doesn't add. And to say there is only eight schemes of cable pulled making it very minor, I guess, versus number of feet, it does not make sense at all, this justification on this.

1           When I sat and read this thing yesterday, I just  
2 couldn't believe what I was reading.

3           MR. WELLS: Okay. I would think that --

4           MR. HARRISON: I would think that Consumers  
5 Power Company's threshold for reporting evidently needs  
6 to be recalibrated and the reasons -- excuse me -- and  
7 that would be on the item of reporting and on the timeli-  
8 ness of reporting.

9           24 hour notification, I would think, is just not  
10 being met.

11           You are caught up with identifying an item -- in  
12 this case it's a cite that goes to Jackson, that goes to  
13 Bechtel and in Ann Arbor yesterday, they told us, well,  
14 they are still working on the evaluation, and as far as  
15 reportability goes, this is so obvious that it's reportable,  
16 I just don't understand what happened at all.

17           MR. WELLS: All right. Jay, we'll have to  
18 look particularly at that. We'll look at our total  
19 process. We had -- I'm being honest with you. We had  
20 made an effort on this whole report to be more timely.  
21 I hope this is actually not a case, but we will look at  
22 it for sure.

23           MR. HARRISON: That's all that we have. Any  
24 comments? Do you have any questions or comments from any  
25 members of the public?

1 THE PUBLIC: I guess I have one specific ques-  
2 tion about something that was mentioned in the meeting  
3 by the gentleman who just presented the CIO presentation.  
4 I can't remember his name -- Mr. Rusco?

5 MR. AMORUSO: Paul Amoruso.

6 THE PUBLIC: Okay. You mentioned an anonymous  
7 phone call and that when you checked it out, that you had  
8 found that there were certain welding procedures that were  
9 being done the way the alleger identified and -- but when  
10 you checked the ASME Code, you found those to be basically  
11 all right. Am I correct in that understanding?

12 MR. AMORUSO: The sequence that was reported was  
13 as reported, but the sequence was, in fact, in accordance  
14 with the Code and specifications. It was all right to do  
15 it.

16 THE PUBLIC: My question is was there any change  
17 to the original procedures that were not being followed?

18 MR. AMORUSO: Was there any change?

19 MR. BARANOW: I think we'd better defer that to  
20 Jim Thompson.

21 Jim, could you expound on that?

22 MR. THOMPSON: Yeah. The person who made the  
23 allegation, he was -- he said that they were performing  
24 tig welding or stick welding and that the procedures  
25 weren't approved for this.

1 He was partially correct in that they were performing  
2 tig welding over stick welding. He was incorrect when he  
3 said that the procedures weren't approved. The procedures  
4 were, in fact, approved for the action.

5 Some companies -- it is often more typical to do  
6 work the other way around. It's for economy reasons  
7 than other activities.

8 I believe the individual was probably more familiar  
9 with doing tig welding first and then completing in stick  
10 welding because some production shops work that way.

11 But there is nothing wrong in working the other way  
12 around. We don't know if we have resolved the individual's  
13 concerns. He hasn't called back to find out what we've done  
14 about it. But as I said, there is nothing wrong in what  
15 was done.

16 THE PUBLIC: That's all I have.

17 MR. HARRISON: Any other questions?

18 (No response.)

19 MR. HARRISON: Okay. We thank everybody for  
20 their attendance and participation.

21 (Hearing concluded.)

22 -----

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1 STATE OF MICHIGAN )  
2 COUNTY OF SAGINAW ) SS

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I, JAYNE M. TINNEY, Certified Shorthand Reporter,  
do hereby certify that I reported in shorthand the proceedings  
had at the Public Meeting of the USNRC, Stone & Webster,  
Consumers Power Company held on Thursday, the 10th of November,  
1983, at or about 9:00 o'clock a.m.

*Jayne M. Tinney*  
\_\_\_\_\_  
JAYNE M. TINNEY, CSR2457

mad



INTEROFFICE MEMO DUM

▲ 040.28

SUBJECT NIRs 002, 003, 004

W O. OR NO. 14509

DATE November 7, 1983

FROM S. W. Baranow

TO: G. EWERT

CC: JHarrison, US NRC Glen Ellyn,  
IL.

RCook, US NRC, Midland (site)

DQuamme, CCo, Midland (site)

RBKelly, S&W

APAmoruso, S&W

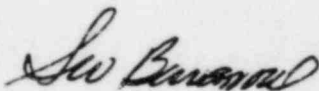
Please advise this office of the status of corrective action accomplished as indicated on MPQAD Quality Action Requests (QAR)

(a) RT-0005 which addresses CIO NIR 002

(b) RT-0006 which addresses CIO NIR 003

(c) RT-0007 which addresses CIO NIR 004

Please be reminded that the proposed completion date indicated on the QARs is November 4, 1983.



S. W. Baranow

NOV 10 1983



Consumers  
Power  
Company

Midland Project: PO Box 1963, Midland, MI 48640 • (517) 631-8650

November 1, 1983

LAB 101-83

Mr Stan Baranow  
Stone & Webster Engineering  
Midland Nuclear Plant Project  
Trailer 186  
3500 E Miller Road  
Midland, MI 48640

MIDLAND ENERGY CENTER PROJECT -  
TRANSMITTAL OF (3) COMPUTER PRINTS

This will confirm the transmittal of three computer printouts containing information on MPQAD (BOP) Inspector records. These prints cover all training, exams, performance demos, certifications, etc.

GFEwert/LABotimer

A handwritten signature in cursive script that reads "L. Botimer".

cc: JHarrison, NRC  
DEMiller, Site Mgr  
RAWells

~~8311170148~~

NOV 8 1983

U.S. NUCLEAR REGULATORY COMMISSION  
REGION II

SUBJECT

DATE

CONTENTS MUST NOT BE MODIFIED

RETURN TO: REGION II CENTRAL FILES



**Consumers  
Power  
Company**

Midland Project: PO Box 1963, Midland, MI 48640 • (517) 631-8650

*sent to DMB 11/8/83*

PRINCIPAL STAFF			
✓ PA	<i>Jan</i>	DRP	
J/RA		DE	
J/RA		DRASH	
✓ C	<i>Jan</i>	DR-IA	
RO		SCS	✓
JA		ML	
E		File	<i>Jan</i>

*orig + 3*

October 31, 1983

Mr Stan Baranow  
Stone and Webster  
Midland Nuclear Plant Project  
Trailer 186  
3500 E Miller Road  
Midland, MI 48640

MIDLAND ENERGY CENTER PROJECT -  
TRANSMITTAL OF PQCI's  
FILE 24.2 SERIAL 26324

This will confirm the transmittal of controlled copies of PQCI and/or changes to Stone and Webster, as listed below:

- C-8.50 Rev 13 CN #AA-00115
- P-1.40 Rev 1 CN #AA-00113
- E-1.60 Rev 6 CN #AA-5124
- C-8.50 Rev 13 CN #AA-00114
- Control Log Week Ending 10/26/83
- E-1.60 Rev 7 CN #AA-5123
- P-2.20 Rev 8 CN #AA-00116
- Reissuance of Control Log Page 5 10/26/83

*J. A. Pucci/lav*

GFEwert/JAPucci

cc: JKepler, NRC Region III Administrator  
DHQuamme, SMO  
RAWells, MPQAD

*831110057*





**Consumers  
Power  
Company**

① Warnick  
② File

PRINCIPAL STAFF		
✓	W	Warnick
	DE	
	DRNA	
	SCS	
	ML	
	File	

✓orig+3

Midland Project: PO Box 1963, Midland, MI 49640 • (517) 631-8650

October 26, 1983

Mr Stanley W Baranow  
Stone & Webster  
Midland Nuclear Plant  
P O Box 1963  
Midland, MI 49640

MIDLAND ENERGY CENTER  
STONE & WEBSTER CORRESPONDENCE  
File: 0655, Bl.1.7 Serial: CSM-0696 UFI: 99\*08

This responds to your request (IOM to D L Quamme dated October 12, 1983) for information on the CCP Training Program for Site Management Office (SMO) staff. This training program was originally set up primarily as an information program but is now in the process of being formalized. In addition to the normal construction activity monitoring performed by the SMO Construction staff, they will be approving CWPs for Q-Work. This should therefore be viewed as an activity included in the CIO scope.

*Dean L. Quamme*  
Dean L. Quamme  
Site Manager

JLO/pp

- CC: JCKepler, USNRC
- RJCook, USNRC-Site
- PBKelly, S&W
- APAmoruso, S&W
- CORichardson, S&W
- JWCook, F26-336B
- RRLee
- BHIuck

~~83110 70308~~

NOV 4 1983



*sent to DMB 10/28/83*



**STONE & WEBSTER MICHIGAN, INC.**

P.O. Box 2325, BOSTON, MASSACHUSETTS 02107

✓ PRINCIPAL STAFF

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Mr. J. Harrison  
U.S. Nuclear Regulatory Commission  
799 Roosevelt Road  
Glen Ellyn, IL 60137

October 27, 1983

J.O.No. 14358

MPS-28

DOCKET NO. 50-329/330  
MIDLAND PLANT - UNITS 1 AND 2  
INDEPENDENT ASSESSMENT OF UNDERPINNING  
AFFIDAVIT AND RESUME FOR ADDITIONAL TEAM MEMBER

Stone & Webster Michigan, Inc. (Stone & Webster) has determined that it will be necessary to supplement the existing Independent Assessment Team with an additional Quality Assurance engineer. In this regard, an affidavit and resume for Mr. Robert L. Lykens are enclosed with this letter.

Stone & Webster has determined that Mr. Lykens meets the independent requirements for this work. If you have any questions, please contact me at (617) 589-2067.

A. S. Lucks  
Project Manager

Enclosures

ASL/mmm

OCT 28 1983

*8311020357*

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION  
ATOMIC SAFETY AND LICENSING BOARD

In the Matter of  
CONSUMERS POWER COMPANY  
(Midland Plant, Units 1 and 2

Docket No. 50-329 OM  
50-330 OM  
Docket No. 50-329 OL  
50-330 OL

February 14, 1983

AFFIDAVIT OF *Robert L. Lykens*

My name is *Robert L. Lykens* I am employed by Stone & Webster Engineering Corporation as *Senior QS Engineer*.

I am currently assigned to the team which is conducting an independent assessment of soils work at the Midland Nuclear Plant site. Prior to being given this assignment, I have never worked on any job or task associated with the Midland Project, or any job or task for or on behalf of Consumers Power Company, Bechtel, or the Mergentime Company relating to soils of underpinning. I have never been employed by Consumers Power Company, Bechtel, or Mergentime Company. I do not own any shares of Consumers Power Company, Bechtel, or Mergentime stock. Mutual funds or other funds in which I may have a beneficial interest, but over which I have no control, may own shares of Consumers Power Company, Bechtel, or Mergentime stock, of which I am unaware. A list of such funds in which I have an interest are attached. I have no relatives which are or have been employed by Consumers Power Company, Bechtel, or Mergentime Company.

Sworn and Subscribed Before Me This the 21st day of October, 1983

*Patricia Lynne Brashears*  
Notary Public

My Commission Expires *6-28-87*

\* I was employed by Bechtel from 6/28/77 to 6/79. I have no ties, financial or professional with Bechtel.

*8311020760*

*Robert L. Lykens*

May 1983

LYKENS, ROBERT L.

SENIOR QUALITY CONTROL ENGINEER  
FIELD QUALITY CONTROL DIVISION

EDUCATION

University of Tennessee - Engineering (one year only)  
U. S. Military Academy (West Point) Bachelor of Science in Military Science  
(Engineering) in 1954

LICENSES AND REGISTRATIONS

Registered Professional Engineer, State of Alabama, 1964

EXPERIENCE SUMMARY

Mr. Lykens joined Stone & Webster Corporation (SWEC) in April 1983 as a Senior Quality Control Engineer.

Prior to joining SWEC, Mr. Lykens was a Project Engineer with Arabian American Oil Company where he monitored and approved design and procurement activities of the Architect-Engineer for projects in Saudi Arabia.

Mr. Lykens was the Quality Control Manager for Exxon Nuclear Idaho Company at Idaho National Engineering Laboratories for construction of a nuclear fuel storage and reprocessing facility.

Mr. Lykens' employment with Exxon was preceded by 8 years with Bechtel Power Corporation where he was assigned Project Field Quality Control Engineer, Field Engineer, and Construction Superintendent (Civil) on various nuclear power plant construction projects.

Prior to joining Bechtel, Mr. Lykens was associated with Boeing Company as a Mechanical Systems Test Engineer and Test Conductor on ground support equipment in the Apollo Space Program.

Before joining Boeing, Mr. Lykens assumed project engineering responsibilities with several firms in the development of the space center in Florida. This work involved studies in logistics, transportation, market research and contract management.

Prior to entering the space program, Mr. Lykens was an officer in the U. S. Army following his commission from the U. S. Military Academy.

DETAILED EXPERIENCE RECORD  
LYKENS, ROBERT L. 02559

STONE & WEBSTER ENGINEERING CORPORATION, OAK RIDGE, TN (Apr 1983 to Present)

Appointments:

Senior Quality Control Engineer - Apr 1983

Clinch River Breeder Reactor Plant Project, U.S. Department of Energy  
(Apr 1983 to Present)

As SENIOR QUALITY CONTROL ENGINEER responsible for training and supervision of all Civil Field Quality Control (FQC) Engineers, Assistant Engineers, Inspectors, and Technicians for all site monitoring, testing, and acceptance inspection for earth fill placement, blasting, rock-bolting, rebar placement, concrete placement, structural steel erection, coatings, laboratory testing, and other work within the Civil Field Quality Control area of responsibility. Coordinate with Construction Supervision, Construction Engineering, the Architect-Engineer (AE) and the client to resolve problems, conflicts, and nonconformances in order to insure that the work conforms to drawings, specifications, and codes and standards.

ARABIAN AMERICAN OIL COMPANY, HOUSTON, TX (Nov 1980-July 1982)

Appointments:

Project Engineer - Nov 1980

As PROJECT ENGINEER responsible for monitoring, reviewing, and concurring with the design and procurement activities of the Architect-Engineer for projects to be constructed in Saudi Arabia (pipelines, pump stations, and seawater treatment plant). Also assisted in contract development and negotiations; performed liaison with field operating organizations; and developed operating and precommissioning manuals.

EXXON NUCLEAR IDAHO COMPANY, IDAHO FALLS, ID (June 1979-June 1980)

Appointments:

Projects Quality Control Manager - June 1979

As PROJECTS QUALITY CONTROL MANAGER responsible for training and supervising thirty engineers and inspectors of all disciplines and developing and implementing a quality control program and procedures for modifications and expansion to the Idaho chemical processing plant for processing nuclear waste and construction of a new nuclear fuel processing and storage facility.



BECHTEL POWER CORPORATION, SAN FRANCISCO, CA (June 1971-June 1979)

Appointments:

Quality Control Engineer - June 1971  
Project FQC Engineer - Jan 1972  
Field Engineer/Construction Superintendent - June 1975  
Lead Civil Quality Control Engineer - June 1976

Davis-Besse Nuclear Power Station, Toledo Edison and Cleveland Electric and Illuminating Co. (June 1971-June 1974)

As a QUALITY CONTROL ENGINEER (June 1971-Jan 1972), responsible for surveillance of quality control programs of all civil/structural contractors at the 900 MW Davis-Besse, Unit 1.

As PROJECT QUALITY CONTROL ENGINEER (Jan 1972-June 1974), responsible for training and supervision of quality control engineers, all disciplines and implementation of the construction management quality control program at the Davis-Besse Project.

Turkey Point Nuclear Power Station, Units 3 and 4, Florida Power & Light (June 1974-June 1976)

As PROJECT QUALITY CONTROL ENGINEER (June 1974-June 1976), responsible for implementing the quality control program for construction of rad-waste facility and modifications to two operating nuclear power plant units.

As CIVIL FIELD ENGINEER/SUPERINTENDENT (June 1975-June 1976), at Turkey Point responsible for resolution of construction/design problems in the field and for planning and coordinating the work of all civil and structural crafts in nuclear power plant modifications and expansions.

Palo Verde Nuclear Generating Station, Units 1, 2, and 3, Arizona Public Service (June 1976-June 1979)

As LEAD CIVIL QUALITY CONTROL ENGINEER was responsible for training and supervising sixteen quality control engineers and implementing the quality control program for all civil structural work in the construction of three 1300 MW units at Palo Verde.

THE BOEING COMPANY (BOEING ATLANTIC TEST CENTER) MERRIT ISLAND LAUNCH AREA, FL (June 1965-June 1970)

Appointments:

Systems Test Engineer - June 1965  
Test Conductor - Sept 1967

As SYSTEMS TEST ENGINEER (June 1965-Sept 1967), responsible for fabrication, testing, maintenance, and operation of high pressure pneumatic and hydraulic control systems for ground support equipment and cryogenic service systems for the Apollo launch vehicle. Member of launch team for several lunar landing launches.



As TEST CONDUCTOR (Sept 1967-June 1970), responsible for achieving and maintaining launch readiness for all ground support equipment during test and launch countdown of the Apollo launch vehicle. Monitored ground support firing room panel which summarized firing status of panels of approximately 25 systems engineers. Coordinated with Chief Test Conductor concerning launch configuration during mission countdown (Mechanical Engineer).

BROWN ENGINEERING COMPANY, CAPE CANAVERAL, FL (Mar 1963-June 1965)

Appointments:

Engineer - Mar 1963  
Project Engineer - Dec 1963

As ENGINEER (Mar 1963-Dec 1963), performed studies to assist NASA counterparts in determination of space center support requirements, i.e., transportation, food services, medical facilities, logistics, and maintenance.

As PROJECT ENGINEER (Dec 1963-June 1965), responsible for designing total food services system, to include facilities and operations, for the space center in Florida. Developed specifications for all equipment and procured equipment.

THIOKOL CHEMICAL COMPANY, REDSTONE ARSENAL, AL (Aug 1962-Mar 1963)

Appointments:

Facilities Engineer - Aug 1962

As FACILITIES ENGINEER performed studies to determine costs for new facilities and modifications to facilities requested by operating departments of manufacturer of solid propellant rocket motors.

MARTIN-MARIETTA CORPORATION, DENVER, CO (Apr 1961-Aug 1962)

Appointments:

Manufacturing Engineer - Apr 1961

As MANUFACTURING ENGINEER developed interface control documentation to insure compatibility between underground launch silos with to-be-installed Titan II ICBMs.

CONSOER-TOWNSEND & ASSOCIATES, NASHVILLE, TN (Aug 1960-Apr 1961)

Appointments:

Assistant Resident Engineer - Aug 1960

As ASSISTANT RESIDENT ENGINEER performed soil tests, concrete tests, surveying, and maintained schedule progress in-place construction materials quantities for construction of municipal airport.

sent to DMB 11/07/83



PRINCIPAL STAFF			
PA	Lee	DRP	
I/RA		DE	
M/RA		DRASH	
IC		DRH	
PAO		SCS	
SGA		ML	
EIF		File	

Midland Project: PO Box 1963, Midland, MI 48640 • (517) 631-8650

October 27, 1983


Mr Stan Baranow  
 Program Manager CIO  
 Stone and Webster  
 Midland Energy Center  
 PO Box 1963  
 Midland, MI 48640

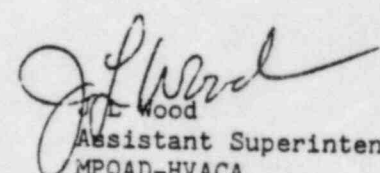
SUBJECT: MIDLAND ENERGY CENTER - REQUESTED DOCUMENTS  
 FILE: 24.2 SERIAL: 19850

This is to confirm discussion between R D Turner of MPQAD-HVACA and J Barr of Stone and Webster on requesting the following documents:

- Bechtel Letter BLC-18300, dated October 25, 1983
- Bechtel Letter BLC-18061, dated September 26, 1983
- Program to Evaluate Past Welding to Photon Procedures, Rev 1

A copy of each of the above is attached for your use.

  
 H P Leonard, General Superintendent  
 Plant Assurance Division  
 MPQAD

  
 J L Wood  
 Assistant Superintendent  
 MPQAD-HVACA

HPL/JLW/SKC/cn

cc: JHarrison, NRC (w/o att)  
 RAWells, MPQAD (w/o att)  
 DQuamme, Midland (w/o att)

8311090 358

NOV 7 1983

Sent to DMVB 10/31/83



Consumers  
Power  
Company

Midland Project: PO Box 1963, Midland, MI 48640 • (517) 631-8650

PRINCIPAL STAFF		
✓ RA	has	DRP
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A/RA		DRASF
✓ RC	has	DRMA
PAO		SCS ✓
SGA		ML
ENF		File has

orig + 3

October 26, 1983

Mr Stan Baranow  
Program Manager CIO  
Stone and Webster  
Midland Energy Center  
PO Box 1963  
Midland, MI 48640

SUBJECT: MIDLAND ENERGY CENTER - REQUESTED DOCUMENTS  
FILE: 24.2 SERIAL: 19849

This is to confirm discussions between M L Bupp and R D Turner of MPQAD-HVACA and Rick Scallon of Stone and Webster on requesting the following documents:

Zack Quality Assurance Manual

Program to Evaluate Past Welding to Photon Procedures (Draft Copy)

A copy of each of the above is attached for your use.

HPLeonard, General Superintendent  
Plant Assurance Division  
Midland Project Quality Assurance Dept

JLWood  
Assistant Superintendent  
MPQAD-HVACA

HPL/JLW/SKC/cn

cc: JHarrison, NRC (w/o att)  
RAWells, MPQAD (w/o att)  
DQuamme, Midland (w/o att)

~~8311624424~~

OCT 31 1983

sent to DMB 10/31/83



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Company

Midland Project: PO Box 1963, Midland, MI 48640 • (517) 631-8650

PRINCIPAL STAFF		
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J/RA		DE
A/RA		DRMSF
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PAO		SCS ✓
BGA		ML
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October 25, 1983

Mr Stan Baranow  
Stone and Webster  
Midland Nuclear Plant Project  
Trailer 186  
3500 E Miller Road  
Midland, MI 48640

MIDLAND ENERGY CENTER PROJECT -  
TRANSMITTAL OF PQCI's  
FILE 24.2 SERIAL 26316

This will confirm the transmittal of controlled copies of PQCI and/or changes to Stone and Webster, as listed below:

- CW-1.00, Rev 5 CN #AA00111
- P-1.40, Rev 1 CN #AA00110
- P-2.30, Rev 4 IR Replacement pages
- PIW-1.00, Rev 6 CN #AA00112
- C-2.20, Rev 6 CN #AA00011 & AA00014 Revised Effectivity Dates
- PF-1.10, Rev 5 CN #AA00105 IR

*J. A. Pucci / sav*  
GFEwert/JAPucci

cc: JKeppler, NRC Region III Administrator  
DHQuamme, SMO  
RAWells, MPQAD

OC0983-0001A-QL05

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OCT 31 1983

sent to DMB 10/31/83

PRINCIPAL STAFF		
RA	DEFP	
D/RA	DE	
A/RA	DE/SE	
RC	DE	
PAO	SCS	✓ via
SGA	ML	13
ENF	File	



# STONE & WEBSTER MICHIGAN, INC.

P.O. BOX 2325, BOSTON, MASSACHUSETTS 02107

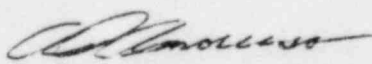
Mr. J. J. Harrison  
Nuclear Regulatory Commission  
799 Roosevelt Road  
Glen Ellyn, IL 60137

October 24, 1983  
J.O. No. 14509

RE: DOCKET NO. 50-329/330  
MIDLAND NUCLEAR COGENERATION PLANT  
MONTHLY THIRD PARTY ASSESSMENT MEETING

The protocol governing communications for the Remedial Soils and Construction Completion Programs at the Midland Plant, specifies a monthly meeting to discuss third party assessment activities and assigns preparation of the minutes of those meetings to Stone & Webster.

Enclosed are minutes of the meeting held on October 13, 1983.

  
A. P. Amoruso  
CIO Project Manager

Enclosure  
APA/ka

cc: JWCook, CPCo  
DLQuamme, CPCo

OCT 31 1983

~~8311020350~~



MINUTES OF THE MEETING ON OCTOBER 13, 1983

STATUS OF INDEPENDENT ASSESSMENT OF UNDERPINNING AND REMEDIAL SOILS WORK

Purpose

To discuss Third Party Overview activities of Stone & Webster (S&W) and problems encountered regarding underpinning and remedial soils work.

Summary

Mr. A. S. Lucks, Project Manager for the Independent Assessment of Underpinning and Remedial Soils Work, presented a summary of the assessment program for the past year. Highlights follow:

- Assessment Team has been on site for over twelve months.
- The scope of work for the Assessment Team includes overviewing the construction of the underpinning and all remedial soils activities, the Quality Assurance activities associated with the underpinning and remedial soils activities, and reviewing the Work Activity Packages for completeness.
- The Assessment Team includes staff with expertise in Geotechnical Engineering, structural engineering, Quality Assurance, construction, and underpinning.
- The underpinning activities are proceeding on a 24 hour day, 7 days per week schedule and the Assessment Team operates as two units to provide 7 day coverage. One unit is headed up by W. E. Kilker, the second unit is headed up by P. J. Majeski.
- The Assessment Team submits weekly reports, Nonconformance Identification Reports (NCRs) and periodic summary reports directly to the NRC with copies to Consumers Power Company (CPCo).

- To-date 16 underpinning piers have been installed for the Auxiliary Building underpinning and the first set of grillages have been installed.
- Work at the Service Water Pump Structure (SWPS) has included installation of the soldier piles and dewatering systems in preparation for underpinning.
- Preparations are in progress for the extension of the Borated Water Storage Tank foundations.
- The Assessment Team has had the opportunity to see most of the operations necessary for the underpinning work.
- A total of 55 weekly reports, 15 NCRs and a 90-Day Summary report have been issued.

Based on activities during the past twelve months, the Assessment Team has the \_\_\_\_\_ following observations:

- The underpinning that has been installed is of a very high quality.
- The Quality Assurance staff are performing as an effective quality organization.
- All of the organizations involved in the underpinning have demonstrated a positive attitude and concern towards quality.
- The instrumentation system installed to monitor building movements adds to the confidence in the success of the underpinning work.
- Both CPCo and Bechtel have been responsive to the requests and needs of the Assessment Team.
- Currently 14 of the 15 NIRs have been closed out. Seven of the NIRs were related to Specifications or Construction Procedures, six were related to QA Procedures, and two were hardware related.

- From time-to-time the Assessment Team has stated that the completions of underpinning piers, from excavation to load transfer, should be accomplished in a more timely manner. This item is still of concern to the Assessment Team, although some improvement has taken place and Quality has not been impacted.

Mr. W. E. Kilker presented a description of the major underpinning activities during the previous month. Highlights follow:

- The installation of the Pier 8 grillage beams on the east and west ends of the Auxiliary Building was the major underpinning activity during the month. They were installed in accordance with project procedures, and the Assessment Team was particularly impressed with the teamwork demonstrated during the load transfer to the beams.
- Progress was made in obtaining access for underpinning activities through the Utility Access Tunnels. The soil stabilization by grouting is being effectively accomplished. Grout takes are high.
- Outstanding NCRs on the reinforcing steel for the BWST foundations have been resolved and installation of the reinforcing steel has begun.
- At the SWPS the installation of the soldier piles is almost complete and initial tests of the dewatering systems suggest that it may be more effective than anticipated.
- Miscellaneous activities have included installation of cathodic protection systems, removal of two 36 inch casings, piezometer installation and soil investigation work.
- During the installation of a piezometer there was an incident of drilling into a beam that extends from the Auxiliary Building. A stop work order was issued on drilling and the occurrence was investigated. In the future, structural drawings will be reviewed, in addition to utility

drawings, before a drilling permit is issued.

- One NCR was issued during this period. It concerned certification of QC supervisors. This NCR has been closed.
- Five Work Activity Packages were reviewed and Assessment Team questions were satisfactorily resolved.

Questions and Answers

- Mr. J. J. Harrison (NRC) asked if Stone & Webster tracked commitments made by CPCo in closing open items from the daily meetings, for example, Item 52-14. A check by the NRC had shown that some six weeks after the commitment had been made the drawing had not been changed. Mr. W. E. Kilker (S&W) replied that Stone & Webster does not track an item after closing, but the item would be brought to CPCo attention if the drawing were to be used for construction without the change being made. R. A. Wells (CPCo) stated that if it is flagged on a formal quality document it would be tracked. J. A. Mooney (CPCo) stated that he will check on the CPCo tracking process.

Mr. R. Landsman (NRC) commented that a drawing with a detail noted as Non-Q had been identified and this also had not been corrected.

- Mr. J. J. Harrison (NRC) remarked that daily meeting notes indicated that an item on a drawing was only a suggested method and not a requirement and asked why it was shown on the drawing, if it is only a suggestion. Mr. W. E. Kilker (S&W) stated that the procedure associated with this item points out that it is a suggested method. Mr. J. A. Mooney (CPCo) stated that he will check on this item.
- Mr. J. J. Harrison (NRC) commented that in weekly report No. 49, the Assessment Team suggested a solution to possibly avoid problems with welding. This suggestion had also been made in weekly report No. 30.

He asked why had CPCo not acted sooner. J. A. Mooney (CPCo) stated that they had reviewed the situation and had thought that the existing procedure was adequate but that this was subsequently not the case and the suggested change had been implemented. Mr. W. E. Kilker (S&W) confirmed that the change was being made.

- Mr. R. B. Landsman (NRC) asked if the lagging spacing problems had been solved. He noted that it had appeared again in recent weekly reports. Mr. W. E. Kilker (S&W) stated that at the Auxiliary Building, the Contractor had opened up the lagging spacing as requested by the Assessment Team. The latest occurrence was at the SWPS and the problem has now been addressed.
- Mr. R. B. Landsman (NRC) asked what is being done to resolve the venting problems associated with the grouting of bearing plates. Mr. W. E. Kilker (S&W) stated that the Assessment Team was tracking this problem. It occurs when the foundation surface is very irregular, and the Assessment Team is aware that the Contractor is expending considerable effort to solve the problem. The inspection of the cured grout is being performed very carefully.
- Mrs. Sinclair, member of public, asked Mr. J. J. Harrison (NRC), if he was satisfied with the answer to the question on tracking commitments used in closing items from daily meetings. Mr. Harrison stated that CPCo had committed to tracking those items; however, the subject would have to be discussed further at the next monthly meeting.



Action Items

- CCo will review the implementation of commitments made to close out daily meeting items.
- Stone & Webster Will refine the tracking system for open items.

MINUTES OF THE MEETING ON OCTOBER 13, 1983

STATUS OF CONSTRUCTION IMPLEMENTATION OVERVIEW (CIO) PROGRAM

Purpose

To discuss Third Party Overview activities of Stone & Webster (S&W) and problems encountered regarding the Construction Completion Program (CCP).

Summary

Mr. A. P. Amoruso, Project Manager for the CIO Program, presented a summary of the Program from the beginning of CIO activities on April 28, 1983 through September 30, 1983.

Four main topics were covered:

- Staffing of the CIO Team. Fourteen people were assigned to the team as of October 13, 1983. Six additional people are expected to join the team by the end of October. The number of people to be added in November will be dictated by work activities that are eventually scheduled.
- Status of Developing Inspection Checklists. Inspection checklists are used by the CIO team in conducting assessments. Checklists have been prepared for 69 Project Quality Control Instructions (PQCI) that are applicable to the verification phase of the CCP and for 40 other areas that hold special interest within the scope of the CIO but are not covered by PQCI. These checklists are now being maintained current with revisions to base documents.
- Summary of Assessment Activities. Efforts were focused during the period on areas of particular concern to starting up the CCP. Assessment activities also took place for areas outside the CCP but within the scope of the CIO. These areas were the Spatial Systems Interaction Program (SSIP); Heating, Ventilation, and Air Conditioning Program (HVAC); and the Nuclear Steam Supply System (NSSS). Seven Management Review Meetings and some fifty other site management meetings were monitored.

Twenty training presentations were monitored and the computer training printout was compared to the training matrix for thirty people. One-hundred and fifty training records and computer entires were sampled. Sixty-nine PQCIs were reviewed. Thirty-five system interactions were evaluated. Thirty-two HVAC welder qualifications were checked.

• Assessment Results. The CIO team uses the term "Observation" to cover five situations: a deficiency, a nonconformance, a request for clarification and information, a request for action, and a question. Observations are reported in weekly reports and tracked by those reports until satisfactorily closed. Nonconformances are also reported by Nonconformance Identification Reports (NIRs). Twenty Observations were reported during the period regarding Management Review Meetings, four were reported regarding PQCIs, five regarding training, and one regarding the SSIP. Of the thirty Observations, one was a nonconformance and three were deficiencies. The nonconformance and deficiencies referred to training records. Four other nonconformances regarding training records were prepared on September 27th and will be included as Observations under the October summary.

#### Questions and Answers

- Mr. R. J. Cook, NRC, asked how changes to PQCIs were incorporated in checklists. Mr. S. W. Baranow, Stone & Webster, replied that revision or change notices for the PQCIs trigger the updating process for checklists.
- Mr. R. J. Cook asked if the adequacy of the training matrix has been evaluated. Mr. A. P. Amoruso, Stone & Webster, replied that the matrix was under evaluation.
- Mr. R. B. Landsman, NRC, asked if craft training was included in the training program. Mr. D. B. Miller, CPCo, replied that craft training is included.

Minutes of Meeting  
October 13, 1983  
PAGE 3

- Mr. J. J. Harrison, NRC, stated that before NRC released Hold Points, related Hold Points established by Stone & Webster would have to be cleared.
- Mr. D. S. Atri, member of public, asked how a checklist is determined to be adequate or not. Mr. A. P. Amoruso, Stone & Webster, replied that checklists are based on PQCI's which reference applicable specifications. If specifications change, PQCI's and checklists are revised.

Action Items

None



Consumers  
Power  
Company

Midland Project: PO Box 1963, Midland, MI 48640 • (517) 631-8650

October 24, 1983

LAB 100-83

Mr Stan Baranow  
Stone & Webster Engineering  
Midland Nuclear Plant Project  
Trailer 186  
3500 E Miller Road  
Midland, MI 48640

MIDLAND ENERGY CENTER PROJECT -  
TRANSMITTAL OF (3) COMPUTER PRINTS

This will confirm the transmittal of three computer printouts containing information on MPQAD (BCP) Inspector records. These prints cover all training, exams, performance demos, certifications, etc.

GFEwert/LABotimer

A handwritten signature in cursive script that reads "L. Botimer".

cc: JHarrison, NRC  
DEMiller, Site Mgr  
RAWells

~~8377050289~~





STONE & WEBSTER MICHIGAN, INC.

P.O. Box 2325. BOSTON. MASSACHUSETTS 02107

United States Nuclear Regulatory Commission  
Midland Site Resident Inspection Office  
Route 7  
Midland, MI 48640

October 21, 1983

J.O.No. 14358

MPS-26

Attention: Mr. R. Cook

DOCKET NO. 50-329/330  
MIDLAND PLANT UNITS 1 AND 2  
INDEPENDENT ASSESSMENT OF UNDERPINNING  
EVALUATION OF CHANGE AND NONCONFORMANCE DOCUMENTS

Enclosed with this letter are three copies of the report entitled, "Evaluation of Change and Nonconformance Documents." Copies of the report are also being mailed to Mr. J.A. Mooney of Consumers Power Company.

If you have any questions with respect to the report, please contact me at (617) 589-2067.

A. S. Lucks  
Project Manager

Enclosure

ASL/mmm

~~52/1050391~~

OCT 31 1983

J.O.No. 14358

EVALUATION OF CHANGE AND NONCONFORMANCE DOCUMENTS  
INDEPENDENT ASSESSMENT OF UNDERPINNING

MIDLAND PLANT - UNITS 1 AND 2  
CONSUMERS POWER COMPANY  
OCTOBER 1983

Prepared By  
STONE & WEBSTER MICHIGAN, INC.  
BOSTON, MASSACHUSETTS

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OCT 31 1983

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APPENDIX

Trip Notes - August 24 Through August 26, 1983

Trip Notes - August 30 Through September 2, 1983

## INTRODUCTION

The evaluation of the change and nonconformance documents and their impact on the progress of the underpinning work was initiated as a result of concerns discussed in the Independent Assessment of Underpinning Weekly Reports. Report No. 40, dated June 27, 1983, indicated the Assessment Team's concern to limit the exposure time of the structures to unsupported conditions. It was demonstrated that piers could be constructed and loaded in about 25 to 30 days. However, this target is not being regularly achieved. Report No. 43, dated July 20, 1983, expressed the Assessment Team's concern that load transfer onto completed piers should be able to be accomplished in a much shorter time period. Report No. 46, dated August 10, 1983, indicates that the Assessment Team believes that the Engineering, Quality Control, and Construction organizations must initiate an evaluation of performance to date in an effort to identify actions that could reduce the completion time without compromising quality. The report also indicated that it was the opinion of the Assessment Team that such a goal is obtainable.

At the request of Consumers Power Company, an independent evaluation was performed on the influence that the various change and nonconformance documents had on accomplishing the underpinning work and to determine if specific recommendations can be made in this area to reduce the amount of time the building is exposed in an unsupported condition. The circumstances at the Midland Plant and the type of structure involved are considerably different from the type of structure that has classically employed this method of remedial work to solve foundation problems. The major difference is that, typically, structures which are underpinned are of much lighter construction, designed for less severe conditions, and may be near impending collapse. The structures being underpinned at the Midland Plant are not facing impending structural failure.

The basic thrust of this evaluation is directed at the critical path activities associated with the underpinning work for the Auxiliary Building. The remedial soils work for the Diesel Generator Building has been completed. The corrective work associated with the Borated Water Storage Tanks is underway and should be completed by the first of the year. The underpinning work associated with the Service Water Pump Structure is just beginning, but this structure has better access for the performance of the work and is smaller in size.

Trip notes covering the periods of August 24 through August 26 and August 30 through September 2, 1983, are attached to provide additional background information on the evaluation and subsequent recommendations.

## EXECUTIVE SUMMARY

This evaluation of the change and nonconformance documents and their influence on the quality and progress of the work has identified four basic areas where additional applied effort could result in faster completion of the underpinning effort and a reduction in the risk associated with the unsupported portions of the building during construction. These recommendations are listed in order of importance and a reference is given to the

section of the report which provides more detailed discussion in support of the recommendation. The recommendations are as follows:

1. The program which was recently implemented to review both existing and new Construction Procedures, Project Quality Control Instructions (PQCI), and Project Specifications should receive a high priority effort in order to define the important quality attributes consistent with the intent of the specifications. This will result in a clear definition of the quality requirements and the utilization of technical resources in achieving these quality goals. This effort will require considerable technical support by Bechtel's Ann Arbor Power Division (AAPD) Project Engineering Group. For additional discussion refer to the section entitled "Attendance at Meetings."
2. The completion of the design work associated with the underpinning should be expedited so that the design calculations and drawings may be transmitted to the jobsite along with necessary technical support. This will expand the ability of the Resident Engineer to approve the change and nonconformance documents in the shortest time possible. The problems encountered in the conduct of the underpinning work and the very nature of this type of work make it preferable to have maximum engineering support at the jobsite. For additional discussion refer to the section entitled "Organizational Structures."
3. The Field Change Request (FCR) should receive final approval by the Project Engineer shortly after interim approval has been granted. This will require Bechtel to revise its procedures. Updating of drawings for the changes indicated on FCRs cannot take place until final approval occurs. This will permit more rapid updating of the design drawings for FCRs and will make the application of the recent revised procedure for updating drawings after five FCRs have been issued more meaningful. For additional discussion refer to the section entitled "Evaluation of Field Change Requests (FCR)."
4. The Nonconformance Reports (NCR) should have trend analysis performed which relates the number of NCRs to the level of construction effort. Also the NCRs should be classified by subject and this distribution reviewed to assist in providing an indicator to problem areas. For additional discussion refer to section entitled "Evaluation of Nonconformance Reports (NCR)."
5. It is important that Bechtel continues to strive to reduce the response time on critical NCRs that could delay the work. For additional discussion refer to the section entitled "Evaluation of Nonconformance Reports."

The intent of the first two recommendations is currently being implemented at the jobsite or is part of current plans for the underpinning work.



## METHODOLOGY

The approach used in the Evaluation of Change and Nonconformance Documents was performed using a structured methodology. The initial concern was with the influence of these documents on the progress of the underpinning work, but as the evaluation evolved, peripheral issues developed which expanded the initial scope. The methodology used was broad enough to allow for orderly expansion of the evaluation if findings warranted such broadening. The initial methodology used for the evaluation follows:

1. Establish the scope and complexity of the remedial soils work by review of design drawings and visits to the various work areas on the site.
2. Attend all regularly held meetings related to the underpinning work.
3. Establish the spectrum of engineering and quality assurance change and nonconformance documents that could impact the progress of the work.
4. Evaluate the documents established by Step 3 for subject matter, approvals, and response times.

Initial subject classifications are:

- a. Tolerances
  - b. Materials
  - c. Welding
  - d. Construction
  - e. Testing
  - f. Fabrication
5. Review any existing trend analysis that has been performed for the change and nonconformance documents.
  6. Review the existing procedures covering the various change and nonconformance documents.
  7. Determine the organizational structure of the responsible engineering/construction organization, and determine its influence on change and nonconformance documents.

This programmed approach proved to be adequate for the task, but the attendance at meetings (Item 2), review of existing trend analysis (Item 5), and review of organizational structures (Item 7) resulted in identifying peripheral issues that form the basis of the recommendations contained in this report.

## ORGANIZATIONAL STRUCTURES

The organization selected for evaluation was Bechtel Power Corporation since it has the basic responsibility for the engineering and construction management of the underpinning work. The engineering consultants and contractors

for the underpinning work under Bechtel's overall direction are covered by Bechtel's Quality Assurance Plan. Even though the engineering consultants and contractors may originate various types of change and nonconformance documents, it is the Bechtel organization that tracks, processes, and resolves all such documents. The purpose of this evaluation is to determine if these documents are being adequately processed from an organizational standpoint.

For purposes of additional reference, copies of the following organizational charts have been attached to the trip notes for August 24, 1983, and are as follows:

- Project Soils Organization
- Project Engineering Organization
- Resident Engineering Soils Organization
- Field Soils Organization (FSO)

The overall Bechtel organization, both engineering and construction, is very large and complex and typical of organizations associated with large nuclear power plant projects. Two key organizations are the Project Engineering Organization with its separate group for the remedial soils work and the Field Soils Organization. Both of these groups must interrelate to the larger Bechtel organization for proper overall coordination and integration.

The important subgroups in this structure are the Resident Engineering Soils Organization which is on site and an extension of the Ann Arbor Power Division (AAPD) Project Engineering and the Field Engineering Group of the FSO. Both of these groups are actively involved in the generation and processing of Field Change Requests (FCR) and Nonconformance Reports (NCR). These two organizations have clearly defined written responsibilities which are well understood by the Resident Assistant Project Engineer (Resident Engineer), Mr. E. Cvikl and the Assistant Project Field Engineer (Field Engineer), Mr. M. M. Blendy. There is a distinct separation of responsibilities between engineering and construction.

Currently, the ability of these two groups to resolve change and non-conformance documents on site is very limited. Due to the ongoing design effort by the AAPD Project Engineering, the scope of responsibility of the Resident Engineer can only be expanded when the design calculations and drawings are completed and delivered to the jobsite. Currently, the Resident Engineer can only approve changes and resolve nonconformances that do not involve design calculations. It is expected that calculations covering the Borated Water Storage Tank (BWST) and the Service Water Pump Structure (SWPS) will be transmitted to the jobsite about October 1, 1983.

The relationship between the Resident Discipline Engineer and the Resident Engineer was also reviewed. For example, the on-site delegation of responsibility to the Resident Structural Engineer covers the ability to approve FCRs for such items as minor changes to reinforcing steel, embedments, tack welds, fabrication, minor weld details, drift sets, vendor fabrication, construction procedures, and instrumentation drawings. Any change request which affects the detail design and involves review or alteration of existing calculations must be approved by AAPD. Conversely, the Resident Engineer is authorized to approve all NCRs and FCRs which the Resident Discipline Engineer has prepared dispositions for.

The relationship of the Underpinning Contractor Manager to both the Field Engineering Group and the Resident Engineering Group was examined. It was suggested that certain decisions could have contract cost implications and, therefore, the resolution of items such as acceptability of material based on decisions to scrap or rework an item might involve contract management in the decision-making process. The Resident Engineering Group indicated that the Field Engineering Group makes the decision on whether or not the resolution of a problem is through the scrapping, refabrication, or reworking of a given item until it is acceptable. Such items could be covered, either by an FCR or an NCR.

While the relationship of the Resident Discipline Engineer to the Resident Engineer and their respective relationships to their counterparts in AAPD Project Engineering is complex, the organization functions effectively in the administration of the change and nonconformance documents and, therefore, no recommendations are made concerning changes to the organizational structure.

The major recommendation with regards to the organizational structure is to provide, in the shortest time possible, the design calculations and drawings to the jobsite complete with the necessary technical support so that the role and responsibility of the Resident Engineer can be expanded to handle more of the resolution of the change and nonconformance documents at the jobsite. This step will minimize the amount of delay that can occur due to the processing of these documents. It is also important that adequate technical resources be assigned to the jobsite to support the ongoing technical effort. The engineering consultants must participate in the on-site technical effort. Bechtel has advised that Hanson Engineering, Inc., Spencer, White & Prentis, Inc., and Mueser, Rutledge, Johnston and DeSimone will provide technical support at the jobsite.

#### REVIEW OF PROCEDURES

The following Bechtel procedures were reviewed as part of the determination to identify the significant change and nonconformance documents that could influence the work and to assist in an understanding of the responsible organization structure and the various responsibilities of key participants:

- o FPD-2.000, Rev. 9, July 15, 1983 -  
Field Change Request/Field Change Notice Procedure
- o 7220-G-34(Q), Rev. 16, February 9, 1983 -  
General Specifications for Field Change Notice
- o MED 4.62-0, Rev. No. 21, November 3, 1982 -  
Field Change Request/Field Change Notice
- o EDP-4.62, Rev. No. 3, December 21, 1975 -  
Field Change Request/Field Change Notice
- o MED 4.47-0, Rev. No. 23, April 13, 1983 -  
Drawing Change Notice
- o PEP No. 4.47.2, Rev. No. 2, June 20, 1983 -  
Drawing Change Notices (DCNs)

- o AADP/FSP G-3.2, Rev. 7, June 1, 1981 -  
Control of Nonconforming Items
- o MED 4.61-0, Rev. No. 9, October 8, 1982 -  
Nonconformance Reports (NCRs)
- o PEP No. 2.14.1, Rev. No. 0, October 22, 1982 -  
Resident Engineer for Midland

#### IDENTIFICATION OF CRITICAL CHANGE AND NONCONFORMANCE DOCUMENTS

Based on Bechtel procedures and conversation with the Field Soils Organization (FSO) staff, the following change and nonconformance documents were identified:

- o Field Change Request (FCR)
- o Field Change Notice (FCN)
- o Drawing Change Notice (DCN)
- o Specification Change Notice (SCN)
- o Nonconformance Report (NCR)

The FCR and the NCR are the documents that can most influence the progress of the work on a day-to-day basis. The FCR frequently identifies previously unknown existing field conditions and addresses day-to-day problems related to materials, welding, fabrication, and construction. The NCR often limits continued construction by placing holds on materials and completed construction until the nonconformance is corrected or technically resolved. For these reasons, these two documents were selected for evaluation, using the most currently issued documents. The sample size was large enough to provide simple statistical validity to the evaluation for the period covered by the documents evaluated.

The FCN is a seldom-used document and is very limited in scope and application. The purpose of the FCN is to document changes that Project Engineering has designated and authorized the Project Field Engineer to approve for change implementation. The application of FCNs is described in Specification 7220-G-34(Q), Revision 16, dated February 9, 1983, entitled "General Specification for Field Change Notice." The categories where FCNs are approved for use are described in Section 3.0.

The DCN is a document which is initiated by the AAPD. A DCN is used to make and document changes to drawings without immediately issuing a revision to the drawings. A DCN is used to initiate or release a hold on a drawing; and it can be used by Project Engineering to supersede, void, or correct an approved FCR or FCN written against the drawing. The SCN is a similar document relating to specifications and is issued by AAPD. It would be impossible to trace the influence of DCN and SCNs on the progress of the work since there is no recording procedure that would provide this type of information. The only way that this information could be collected is through personal recollection of the people directly involved with the work. It is important to note that the design of the underpinning operation is still in progress and that the design changes, using the DCN system, are being received at the jobsite.



## ATTENDANCE AT MEETINGS

The Independent Assessment Team meets daily with Bechtel to review the progress of the work and to discuss the Assessment Team's evaluation and concerns. These structured meetings, including the documentation of the daily meetings, are part of the Assessment Team's formal program for its activities. These meetings are typically attended by representatives from the following organizations:

- Consumers Power Company
- Bechtel Power Corporation
- Midland Plant Quality Assurance Department (MPQAD)
- Stone & Webster Michigan, Inc.
- Parsons, Brinckerhoff, Michigan, Inc.

The meetings are conducted by the Bechtel Contract Manager for underpinning. The full spectra of subjects related to this work are discussed, covering such topics as engineering, purchasing, scheduling, quality problems, construction progress, priority NCRs and FCRs, and future considerations for continued improved quality and progress. These meetings are beneficial.

During this evaluation, participation in these meetings provided insights into the Assessment Team's concerns as expressed in the weekly reports about limiting the building exposure due to unsupported conditions. As discussed in the Trip Notes, the problems associated with Pier Kc10 are representative of the Assessment Team's concerns. The unexpected existing conditions that are encountered during construction, such as the concrete fill which had to be excavated for the construction of Pier Kc3, cause frequent delays. Also another factor identified at these meetings is the imposition of Q quality standards applied to all aspects of the work, including temporary construction materials and procedures, which increases the level of inspections, and affects the progress accordingly.

The weekly Engineering - Construction meeting provides a working basis for coordination between Bechtel's AAPD Project Engineering group and the FSO organization, including the Resident and Field Engineering groups. These meetings also include representatives from Consumers Power Company groups such as MPQAD, and the Site Management Office (SMO), and the Independent Assessment Team (Stone & Webster). The subjects covered by these meetings include the review of critical FCRs and NCRs, status of critical vendor submittals, discussion of objectives of quality assurance plans, and review of the Action Item List. The Action Item List covers a broad spectrum of subjects, such as cutting in-place reinforcing steel, coordination with consultants, tolerances, Hilti bolts, and revised construction approaches to expedite progress. These meetings demonstrate that Bechtel is endeavoring to benefit and improve quality through better definition of the procedures for construction and required inspections to provide the quality needed to meet the intent of the specifications. The subject of construction procedures and inspection plans warrants high priority. The construction of one pier has required 450 signoffs.

Bechtel plans to prepare an evaluation of the lessons learned on the design, fabrication, and installation of the grillage beams. It is planned that this evaluation will be presented during the week of September 5, 1983.



There has been a continuing dialogue between Bechtel's Field Engineering and Project Engineering groups to establish a method to review specifications, contract work procedures, and Project Quality Control Instruction (PQCI) to better determine what inspections are required for the work. An earlier review, performed by two independent groups within Bechtel, resulted in a similar conclusion concerning what were the important quality attributes of an existing work procedure. It has been agreed that the FSO will proceed to develop a plan for the implementation of this activity and submit it to Consumers Power Company for consideration. Such an effort may require revisions to the specifications and considerable technical support from the AAPD Project Engineering group. This effort deserves the highest priority since it will result in better-defined quality requirements and consequently should expedite the completion of the work. The following are two typically similar observations made at the construction site where quality inspections were either inappropriate or excessive because of lack of definition concerning the important quality attributes:

1. A concrete mud mat has been placed around the existing ring beam for the BWST. This concrete was unreinforced and its purpose was simply to provide a working surface for the construction of the forms and the placement of the additional concrete for these foundations. An NCR had been issued for the cracks in the unreinforced concrete mud mat. The cracking was perfectly normal, and there was no technical reason to reinforce this temporary construction work surface.
2. Considerable effort is being expended in inspecting the structural welds which are being performed in accordance with AWS D1.1. On the metal lagging used for temporary construction of the temporary jacking piers, welds which were used to attach some structural nuts for the purposes of simply holding them in place and welds associated with cover plates, neither of which had any structural requirements, had been inspected.

Specifications and related PQCIs should have defined the necessary inspections.

Considerable benefit can be obtained by properly defining the quality requirements, resulting in the conservation of technical resources, and improved productivity without any compromise to the overall quality required for the work.

#### EVALUATION OF FIELD CHANGE REQUEST (FCR)

The primary purpose of the FCR is to document construction-generated/project engineering approved changes identified by the project as necessary prior to the start of work on the affected items(s). FCRs can also be used to disposition Nonconformance Reports (NCR) and with timely application effectively minimize the number of NCRs by solving problems prior to the start of the work. However, FCRs may not be used in lieu of NCRs.

A group of the most recently issued FCRs were evaluated. The subject classifications used for this analysis follows:

Construction - Includes such items as as-built conditions, clearances, work access for assembly, and changes to improve construction.

Welding - Includes materials, size, construction problems, warping, fabrication, and procedures.

Tolerances - Includes materials, fabrication, and field construction.

Fabrication - Includes both shop and field work.

Materials - Includes availability and substitution problems.

Hilti Bolts - Includes documentation, testing, and procedures.

Testing - Includes all on-site testing problems.

Percent of FCRs in each subject classification is as follows:

Construction:	34 percent
Materials:	18 percent
Tolerances:	16 percent
Welding:	15 percent
Fabrication:	11 Percent
Testing:	3 percent
Hilti Bolts:	3 percent
Total	100 percent

Eighty-three percent of all FCRs are covered by construction, materials, tolerances, and welding problems.

The response time for an FCR is the duration from the date of initiation to the date of interim approval. An FCR is released for construction when interim approval is obtained. The overall mean response time is 2.1 days. However, if three of the FCRs with the longest response times are excluded, the mean response time becomes 1.5 days. About 3 percent of all FCRs are rejected.

All FCRs were properly approved through the interim stage, but only 17 percent had final approval by the Project Engineer or his designee. The age of an FCR does not seem to relate to whether or not it contains final approval by the Project Engineer.

The FCR is being used effectively. The subject classifications are typical for nuclear work, and problems such as tolerances and welding are always present and deserving of special attention. The rejection rate is very low, indicating proper application of the document. The mean response time is very low and indicates that adequate technical support is available to process the FCRs through the interim approval stage, and this portion of the activity is being well-managed.

The fact that about 83 percent of the FCRs did not include final approval by the Project Engineer is a matter of some concern. PEP No. 4.6.2.1, Rev. No. 0, dated November 15, 1982, indicates in Section 4.5.1 that incorporation of FCRs cannot occur until final approval by the Project Engineer. This document

does not specify the elapsed time from either initiation or interim approval to final approval by the Project Engineer.

However, this document does state some lengthy times for incorporation of FCRs into the affected design documents (30 to 45 days). Bechtel indicates that it intends to incorporate change documents when a total of five have been posted against an individual drawing and that the drawing will be revised within 60 days.

A number of the drawings have an extensive number of change documents attached to them. In order to properly understand the content of the drawing, it is necessary to look at both the drawing and all of the change documents attached in order to determine the correct information necessary for construction. Timely updating is very important in terms of maintaining drawing legibility for construction. Since an FCR contains both provisions for interim approval and final approval, there is an implication of a certain degree of incompleteness associated with two stages of approval. It is therefore important that the Project Engineer's approval of FCRs be timely so that incorporation can take place promptly. The Bechtel procedures should be revised to establish more timely requirements for final approval of FCRs by the Project Engineer and updating of drawings.

#### EVALUATION OF NONCONFORMANCE REPORTS (NCR)

The primary purpose of a Nonconformance Report is to document a deficiency in characteristic, documentation, or procedure which renders the quality of an item unacceptable or indeterminate. Examples of a nonconformance include physical defects, test failure, incorrect or inadequate documentation, or deviation from prescribed processing, inspection, or test procedures. NCRs may be originated by the Bechtel organization, subcontractors, suppliers, client organizations, the Nuclear Regulatory Commission, and other regulatory agencies.

A group of the most recently issued NCRs were evaluated. The subject classifications used for this analysis follow:

Construction - Includes such items as work not conforming to the drawings or specifications.

Welding - Includes both field and shop welding, including non-conformances to the drawings, specifications, or procedures.

Fabrication - Includes both shop and field work.

Testing - Includes all on and offsite testing related problems.

Concrete - Includes surface preparation, grouting, concrete placement, bonding, reinforcement, and demolition.

Procedures - Includes all noncompliances that relate to project procedures and basically concerns the administrative aspects of the procedures.

Hilti Bolts - Includes all problems associated with expansion type anchors.

The percent of NCRs in each subject classification is as follows:

Welding	22 percent
Concrete	19 percent
Testing	18 percent
Procedures	13 percent
Fabrication	13 percent
Construction	10 percent
Hilti Bolts	5 percent
Total	<u>100 percent</u>

About 60 percent of all NCRs are covered by problems associated with welding, concrete, and testing; and this is reflected in the additional effort that has been made at the jobsite in the areas of these activities.

Two mean response times were calculated for the NCRs. The first response time is the duration from the date of the report to the date of disposition. If two dispositions were indicated on the NCR form, the one which gave the longest duration was used. The second response time is the duration from the date of the report to closure acceptance by MPQAD. The mean response time to the date of disposition is 5.6 days, and the mean response time to the date of MPQAD closure acceptance is 8.1 days.

All of the NCRs were properly approved. There is no indication on the older NCR form of the priority requirements, but the new NCR form does have a place to designate a priority code.

The Midland Plant Quality Assurance Department (MPQAD) prepared quality trend graphs for the remedial soils work and updates these on a monthly basis. The most recent update of the quality trend graphs revised the occurrence rate from the number of NCRs issued monthly to the number of items affected. The quality trend graphs also segregate the NCRs into a group of subject headings quite similar to those used in the above analysis.

A study was also performed by MPQAD to evaluate the mean closure time for NCRs; and for the period from May 13 to June 13, 1983, the average number of days was 24 for reject/rework items and 30.3 days for repair/use as-is items. For the period from June 13 to July 13, 1983, the mean number of days was 8.7 for reject/rework and 8.8 days for repair/use as-is.

Based on experience from other nuclear projects, the mean response times of 5.6 days from the date of the report to the date of disposition and the mean response time of 8.1 days from the date of the report to the date of closure acceptance by MPQAD are considered to be very good on an overall basis. However, this conclusion can be misleading because this document can have a very direct impact on the day-to-day progress. There have been instances where NCRs have resulted in no work for more than one shift. Observations at the jobsite indicate that a variety of techniques have been developed by Bechtel to expedite the critical NCRs so as to minimize delays in the progress of the work. This is done through direct coordination with Bechtel's Field and Resident Engineering Groups, through the weekly Construction-Engineering



meetings, and through coordination with MPQAD. It is important that Bechtel continues to strive to reduce the response time on critical NCRs that could delay the work.

There does not seem to be any system currently in effect which attempts to measure, on an overall basis, trends related to the quality of the work as reflected by NCRs which is based on the level of effort. As the level of effort expands, so typically do the number of NCRs. However, if the number of NCRs issued is not some way related to the number of construction manhours being expended or some other equivalent measurement, there is no way to ascertain if there is a trend concerning the quality of the work. It becomes difficult to try to associate construction manhours to the subject classification, but the distribution of the NCRs by subject classification does provide an indicator to areas that might require special attention. Observations at the jobsite have indicated that the onsite organizations have responded to the problems associated with welding procedures and concrete. It is recommended that some method of evaluating the NCRs against the level of effort be developed so that meaningful trend analysis can be developed.



APPENDIX

Sept. 16, 1983

TRIP NOTES  
INDEPENDENT ASSESSMENT FOR UNDERPINNING  
MIDLAND PLANTS 1 & 2  
CONSUMER POWER COMPANY

August 24, 1983

Arrived at the jobsite at 11:00 a.m. and proceeded to discuss with W. E. Kilker, Project Engineer, the proposed plan of activities associated with the Midland Plant. The weekly reports, the 90-Day Report, and the Summary of Soils-Related Issues concerning the underpinning work were reviewed. It was agreed that my activities will be limited to a review of the effects of the documents associated with the underpinning operation and their possible influence on the progress of the work.

The following is the proposed course of action:

1. Determine the organizational structure of the Bechtel Power Corporation for the underpinning operation.
2. Identify all the documents associated with change and nonconformance activities that would influence the work.
3. Review the procedures that have been established for change and nonconformance documents.
4. Establish the organizational relationship between the Bechtel Ann Arbor Power Division and the resident engineering group at the plant site.
5. Review a selected number of the change and nonconformance documents identified by Item 3 to determine the response time required for each type of document and to attempt to categorize the documents in terms of the following group of problems:
  - a. Materials
  - b. Welding
  - c. Tolerances
  - d. Construction
  - e. Information

The objective of the initial part of the program is to determine if there are organizational problems that are inhibiting the orderly progress of the underpinning effort. The second part of the program consisting of the review of the documents is to provide a statistical analysis, to determine the response time, and to classify by problem identification. This will assist in identifying whether or not the processing of the change and nonconformance documents are influencing the progress of the work.

It was agreed that Mr. W. E. Kilker would introduce me to the various organizations associated with the underpinning effort.

I took the short 10 minute course required for a temporary access to confined spaces. Mr. P. Barry provided an orientation tour of the plant site after which we attended the daily meeting which was held at 3:00 pm. The following personnel were in attendance at the meeting:

Bechtel - J. Fischer  
J. Gaydos  
E. Cviki

Stone & Webster -

W. E. Kilker  
A. Scott  
J. Springer  
P. Barry  
W. C. Craig

Parsons Brinckerhoff

F. Balsamo

Consumer Power Corporation -

D. Puhalla

The basic purpose of the meeting is to inform the assessment team of current activities and to answer team questions about the underpinning effort. None of the outstanding activities on the list were resolved. A copy of the Independent Assessment Meeting dated August 23, 1983 is attached to these notes.

After the meeting, Mr. J. Fisher introduced me to P. Vanderveer who is responsible for the Nonconformance Reports (NCR), J. Kelleher who is responsible for the Field Change Request (FCR) and M. Blendy who will assist with information regarding procedures. I was also introduced to R. Sevo of Midland Plant Quality Assurance Department (MPQAD) and was advised that D. Horn of MPQAD had performed some trend analysis of NCRs.

After the meeting, P. Barry conducted a tour into the east and west shafts along the interface between the turbine building and the auxiliary building. I was able to observe the underpinning operation in terms of the number of piers that have been completed to date, the setting of large grillage beams and excavation of Pier Kc-10. The work is proceeding in a perfectly symmetrical fashion from both the east and west ends of the auxiliary building. The effort is largely being performed by manual labor and is currently operating on a 2-shift basis.

We also toured the area of the tank farm containing the Borated Water Storage Tanks (BWST) where the addition of a reinforced concrete to the existing ring beams is in progress. A mud mat had been placed and the majority of the Hilti bolts had been grouted into the existing ring beam.

3.

MPQAD had issued an NCR for the cracks in the unreinforced mud mat and for small Hilti bolts that were used to attach supports for holding the larger bolts in place while they were being grouted.

August 25, 1983

Reviewed a number of Bechtel drawings relating to the design of the underpinning for the auxiliary building. Attached to a number of these drawings were two documents, Field Change Request (FCR) and Drawing Change Notice (DCN). The DCN originates out of the Ann Arbor Power Division (AAPD) while the FCRs originate at the jobsite in the Field Soils Organization (FSO) office. The final design of the permanent wall system to support the auxiliary building and control tower is still in progress and this is typified by the recent issue of drawings and the large number of DCNs. Several drawings had so many DCNs and FCRs attached to the back that it made it extremely difficult to effectively interpret the drawings.

Obtained permanent photo badge from the Security Operations Building.

Attended the daily 9:30 meeting and again reviewed the same list of items that had been previously reviewed on August 24. During the second and third shifts, the bell for Pier Kc-10 had been completed and it was expected that during either the second or third shift on August 25, that concrete placement would begin since the hold on concrete mixer would be resolved. Mr. A. Scott of Stone & Webster requested that the notes reflect that a vent must be added to the shear key above the grillage/beams as was suggested on August 24. No significant progress was made concerning the other items on the agenda.

Visited the underpinning contractors welding shop and examined the cause for rejection of a number of structural welds performed in accordance with AWS D1.1. The practice is to inspect a lot of material and if any portion of the material has a hold tag placed on it, the entire lot is held until the NCR is resolved. The welding viewed was the highest quality structural welding that I have ever seen and the cause for rejection was such things as the weld length being 1/16 of an inch too short, slightly undersized fillet welds, a crater in the surface of the fillet weld that was barely 1/64 of an inch in diameter and weld cracking at the root. These inspections were performed by MPQAD. These materials, which were inspected and rejected, were part of the temporary construction materials used to case the excavations for the construction of the temporary jacking piers that are used to support the turbine building and auxiliary building during the construction of the underpinning permanent walls.

I toured the site area looking at the work being performed in association with the Service Water Pumphouse noting the posttensioning devices that have been installed at each corner of the building. This operation is perhaps the most straightforward of the underpinning being performed at the site. I also visited the tank farm and again looked at the concrete cracking in the mud mat, the installation of the shear connectors, and the sandblasting of the existing concrete ring beam that supports the BWST.



Sept. 16, 1983

4.

I again entered the excavation area, both from the east and west side of the underpinning operation for the auxiliary building and examined in more detail the work associated with the first set of grillage beams that will support the turbine and auxiliary building by bearing on piers placed just below the edge of the turbine building and which also rests on the edge of the containment mat. I also entered the utilities access tunnel that is to be used to start the construction of the drift for the underpinning of the control tower. This work space is very confined and very limited. The in-place steel pipe that forms the shaft has been reinforced with ring stiffeners in preparation of cutting away the plate. There is some reason to believe that the area behind this circular steel pipe may contain fill concrete making the excavation extremely slow and costly.

The NRC is on site to review the allegations of structural defects associated with the Diesel Generator Building.

Visited the FSO and collected organization charts and written procedures which define the responsibilities for the processing of FCRs and NCRs and define the responsibility of various organizational groups. Bechtel provided the following organization charts, copies of which are attached;

Project Engineering Organization  
 Resident Engineering Soils Organization  
 Project Soils Organization  
 Field Soils Organization

Copies of the following written procedures were provided:

FPD-2.0 - Rev. 9, July 15, 1983 - Field Change Request/Field Change Notice Procedure

7220-G-34 - Rev. 16, February 9, 1983 - General Specification for Field Change Notice

AADP/PSP G-3.2 - Rev. 7, June 1, 1981 - Project Special Provision to Supersede G-3 of the Thermal Power Organization Field Inspection Manual for the Midland Plant entitled "Control of Nonconforming Items"

MED-4.62-0 - Rev. 21, November 3, 1983 - Field Change Notice/Field Change Request

MED-4.61-0 - Rev. 9, October 8, 1982 - Nonconformance Reports (NCRs)

Bechtel provided copies of the last 100 NCRs and FCRs. Mr. Kelleher agreed with my assessment that the Field Change Notice (FCN) is not a significant change document.

I also met with the Assistant Resident Project Engineer, Mr. E. Cvikl and requested copies of written procedures that define his responsibilities and BX1-1435801-18/63



Sept. 16, 1983

5.

relationship to the AAPD. Mr. Cvikl indicated that he did not believe the Specification Change Notice (SCN), a document which is issued by the AAPD and the Drawing Change Notice (DCN) were change documents that had influenced progress. He did indicate that procedural changes have been made that now require Bechtel to update each drawing after five DCNs or PCR's have been issued against a drawing. A meeting was scheduled for August 26 to discuss the relationship between the Resident Project Engineer and AAPD and to discuss a number of related items with Mr. J. Darby who is the Resident Structural Engineer.

At the end of the day, it was determined that Bechtel would be unable to place concrete for Pier Kc-10 due to unresolved quality problems.

An initial observation, based on a day and a half at the jobsite is that the operating organization and the number of change documents associated with Bechtel's work, is extremely complex. This work appears to be about 6 months behind schedule even though the current Bechtel network indicates that the project is on schedule. The work of underpinning the auxiliary building is very time-consuming and labor intensive. There appears to be a constant array of quality problems that impede the orderly progress of the work. The schedule and sequencing of the performance of the work is such that Step C cannot be started until Step B is completed, if this is the way in which the work was sequenced. The imposition of Q Category to all temporary construction work and sequencing further complicates this problem. It is very easy to be overly judgmental of the underpinning work being performed at Midland without totally appreciating the enormous importance of quality control, schedule commitments, and capital investments that are involved with the execution of this work.

#### August 26, 1983

Met with E. Cvikl of Bechtel to discuss the DCN system and to obtain copies of written procedures that define the relationship of the FSO Resident Engineer to Project Engineering at AAPD. Mr. Cvikl provided copies of the following documents:

PEP 2.14.9, Rev. 1 Resident Structural Engineer for Remedial Soils  
Activity

PEP 2.14.1 - Resident Engineer for Midland

Discussed with Mr. Cvikl the significance of the DCN to the progress of the work. As indicated on August 25, this document is originated by AAPD and to date has had very little impact on the progress of the work. It would be impossible to trace such an influence since there is no recording procedure that would provide this type of information. The only way that this information could be collected is through personal recollection of the people directly involved with the work. It is important to note that the design of the underpinning operation is still in progress and that the design changes, using the DCN system, is being received at the jobsite.

The organization chart for project engineering was reviewed and Mr Cvikl provided some clarification of the various reporting responsibilities.  
BX1-1435801-18/63

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Mr. J. Darby reports technically to Mr. B. Dhar and administratively to Mr. Cvikl. Mr. Cvikl reports directly to Mr. N. Swanberg. Mr. Swanberg is the Project Engineer for the Project Soils Organization and reports to the overall project engineer for the plant.

Mr. Cvikl also indicated that the FSO must interface with the Resident Engineering Organization, which is across the site, and handles all of the balance of plant work. It can, therefore, be concluded that the engineering operation is extremely complex involving the AAPD, the total plant project, the Project Soils Organization, the Field Soils Organization, two resident engineering organizations, and two field engineering organizations. This does not include the other engineering subcontractors.

Mr. Cvikl also indicated that the FSO is influenced by the actions of the general construction organization at the jobsite and depends on this organization for such things as inspection, testing, detection of rebar, support with regard to welding inspection and other unique support services. In effect, they must be scheduled and/or compete with other project construction needs.

My schedule for the continuation of this work with the independent assessment team is as follows:

1. Return to the Midland Plant site on August 30, 1983 and remain through to September 2.
2. Meet with MPQAD to collect information concerning the NCR trending studies that may have been performed.
3. Evaluate, classify, and determine response times for 100 of the most recent FCRs and NCRs.
- 4.. Prepare a preliminary assessment for review by the Project Manager.
5. During the week of September 11, determine if additional evaluation and further site visits are required prior to preparing the final report.

*W. C. Craig*  
W. C. Craig  
Senior Structural Engineer

Notes of Daily Meeting  
Independent Assessment of Underpinning  
Midland Plant Units 1 & 2  
Consumers Power Company

Held at Midland Site Location  
Midland, Michigan  
August 23, 1983

Present For:

Consumers Power

G. Murray  
J. Schaub

Bechtel

J. Fisher  
J. Gaydos  
E. Cvikl

MPQAD

R. Sevo

Stone & Webster

A. Scott  
W. Kilker  
B. Holsinger  
J. Springer

Parsons

F. Balsamo

Purpose

This meeting is held each day to discuss items regarding the Independent Soils Assessment at the Midland Plant, Units 1 & 2.

Discussion

Item 49-8 - Impact of Welding Nonconformance on E/W8 Grillage Installation.

J. Fisher reported that on the drop pit column cap beam a non-qualified weld had been installed. The Contractor is coordinating the issuance of a Conditional Release with CPCo to allow the work to proceed while the welding issue is resolved. G. Murray said CPCo will approve the use of the Conditional Release only in situations where no procedural changes are anticipated. J. Fisher replied that this case will not invoke procedural changes. J. Schaub recommended FSO evaluate if similar situations exist for other weld sizes. ( OPEN ITEM )

Item 49-9 - Grillage Stabilizer Plate Hole Tolerances.

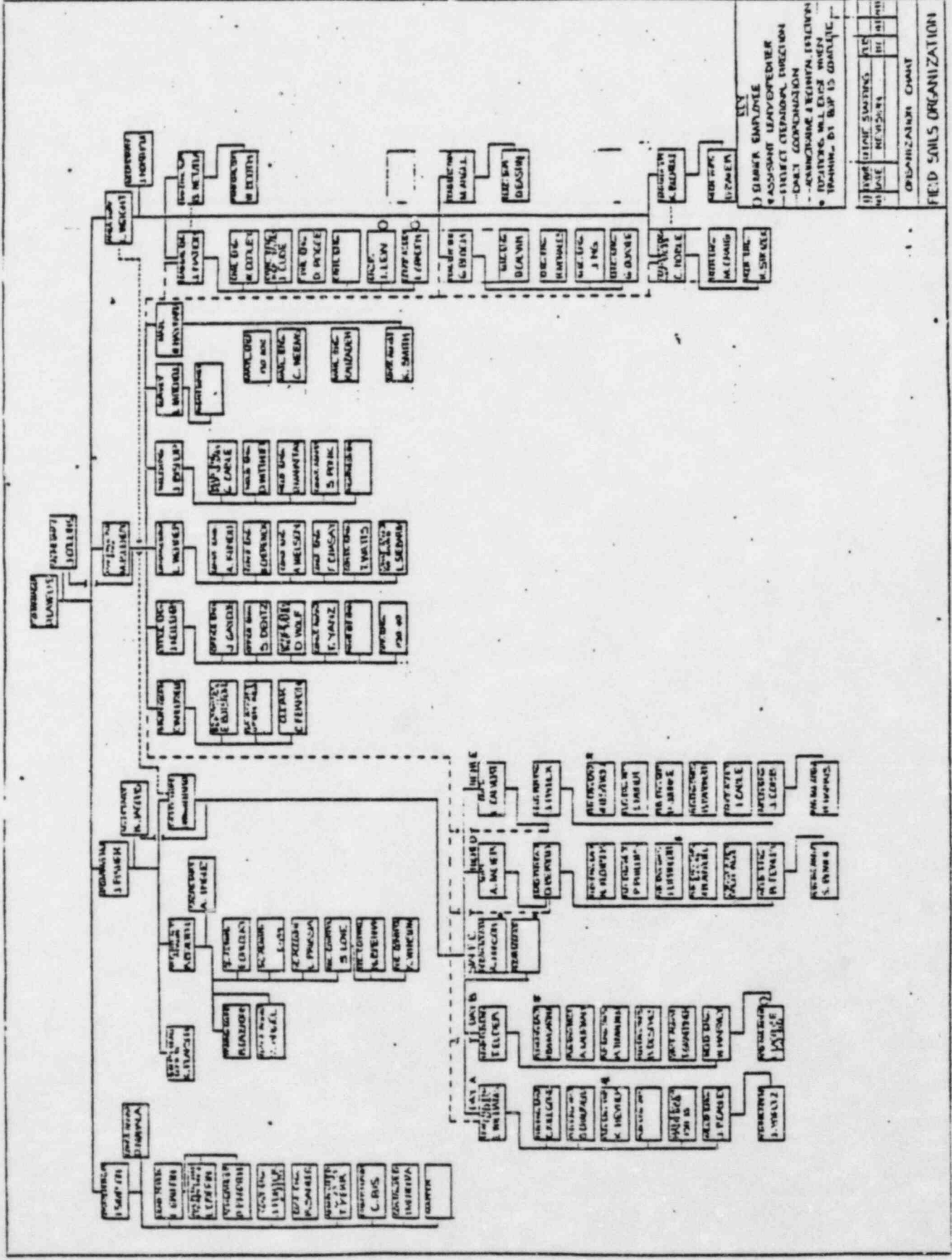
A. Scott questioned if the stabilizer plates were unique from the other grillage leveling plates in terms of hole tolerances. J. Fisher will respond. ( OPEN ITEM )

Item 49-10 - QC Coverage of Proposed Grouting Activity.

A. Scott questioned if QC would be able to support the grouting activity proposed for the west access shaft waler pit. R. Sevo explained that the inspection of this grouting could be covered under the existing PQCI but inspection of CT pier grouting required retraining to a revised PQCI. (CLOSED ITEM )

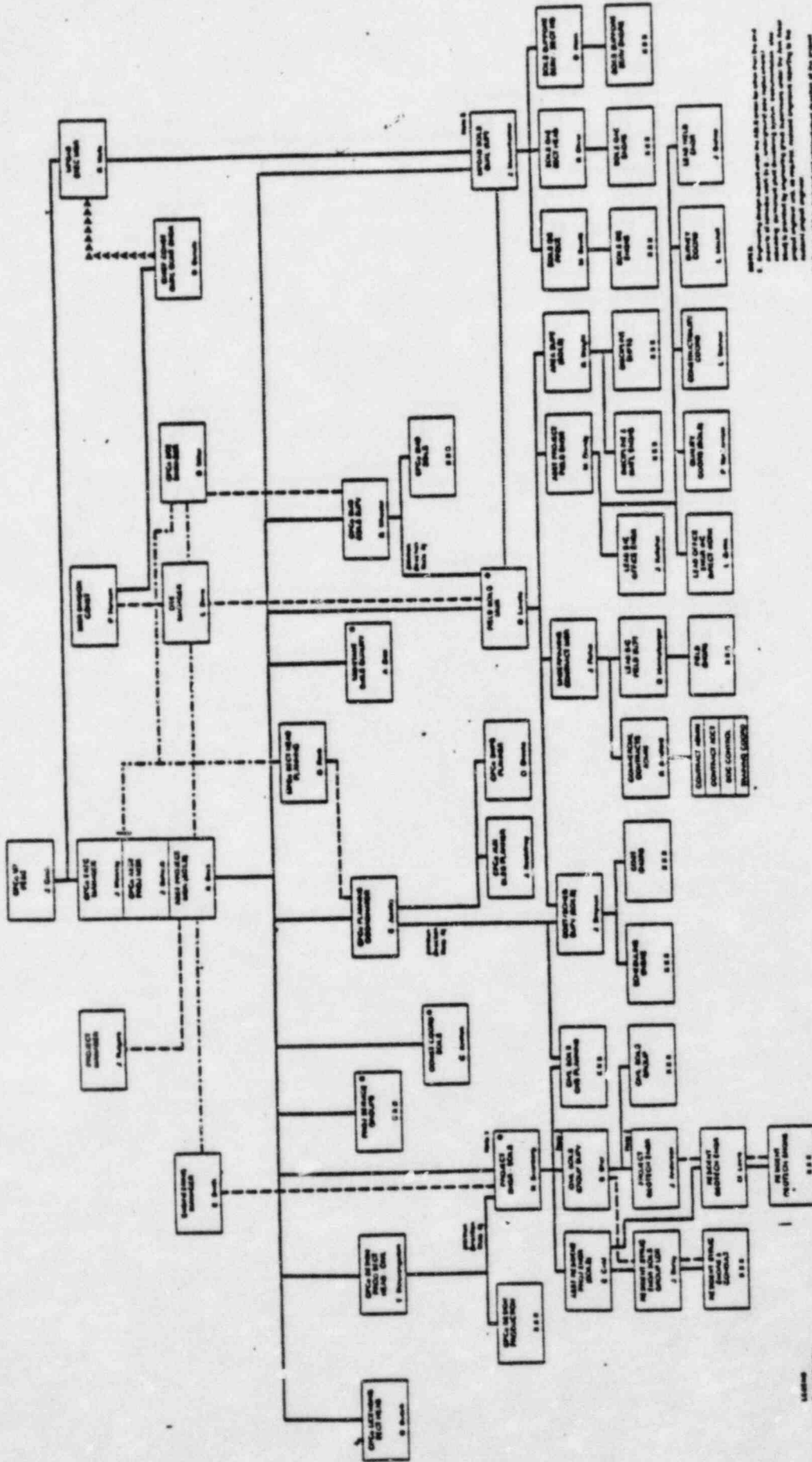
Item 49-11 - E/W8 Grillage Lower Bearing Plates/Cap Beam Fit-up.

A. Scott noted that the bearing plates resting on the cap beams do not bear uniformly. E. Cvikl will review the requirement. ( OPEN ITEM )





**MS&A AND UNITS 1 AND 2  
PROJECT SOLE ORGANIZATION**  
Proposed to April 30, MS&A Order

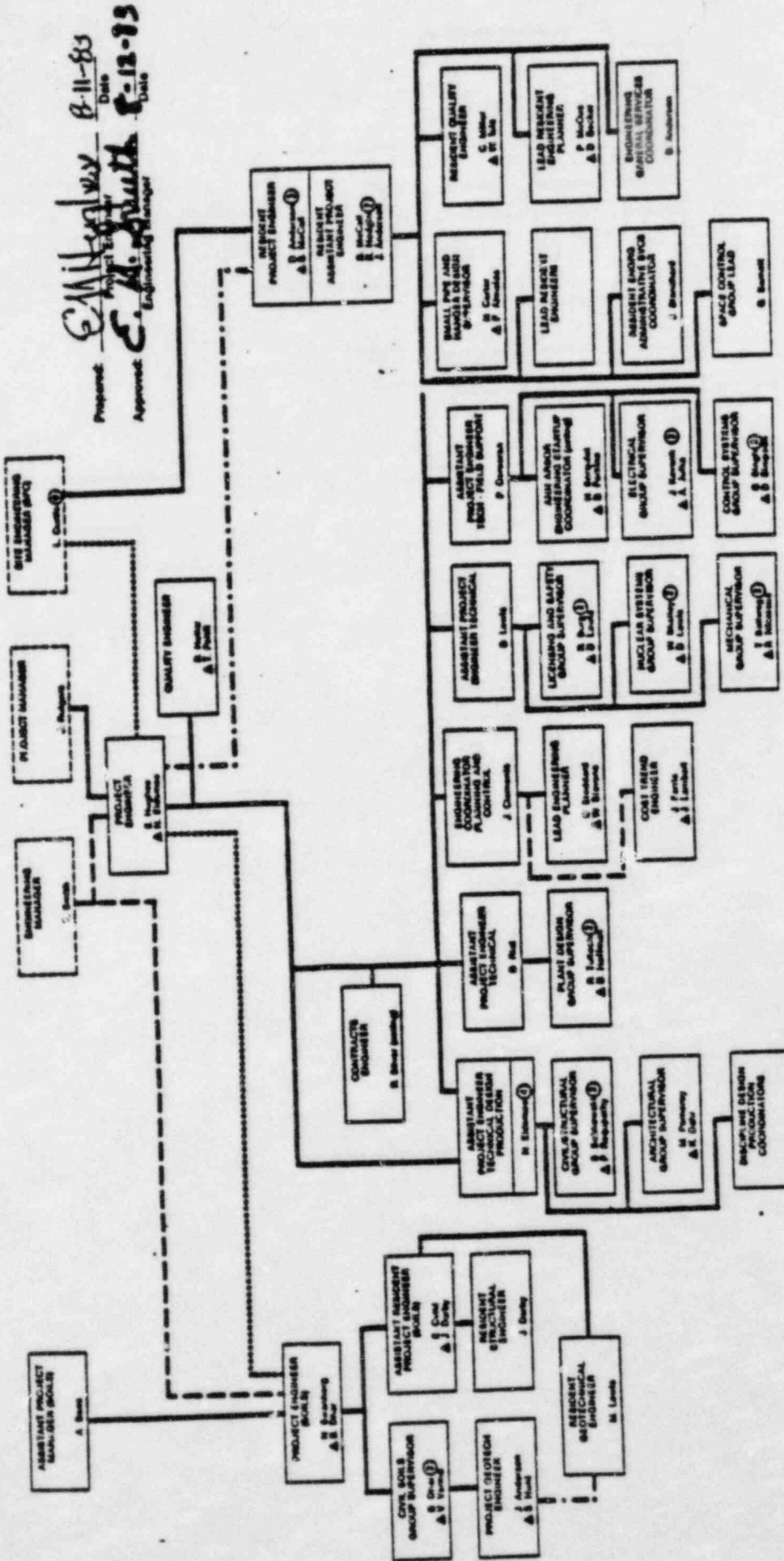


**LEGEND:**  
 Solid lines: Reporting relationship  
 Dashed lines: Advisory relationship  
 Dotted lines: Dotted line relationship  
 Boxes with diagonal lines: Part-time position  
 Boxes with horizontal lines: Contract position  
 Boxes with vertical lines: Seasonal position  
 Boxes with wavy lines: Temporary position  
 Boxes with no lines: Full-time position  
 Boxes with a star: Key position  
 Boxes with a circle: Position to be filled  
 Boxes with a square: Position to be eliminated



125394

MIDLAND UNITS 1 AND 2  
PROJECT ENGINEERING ORGANIZATION



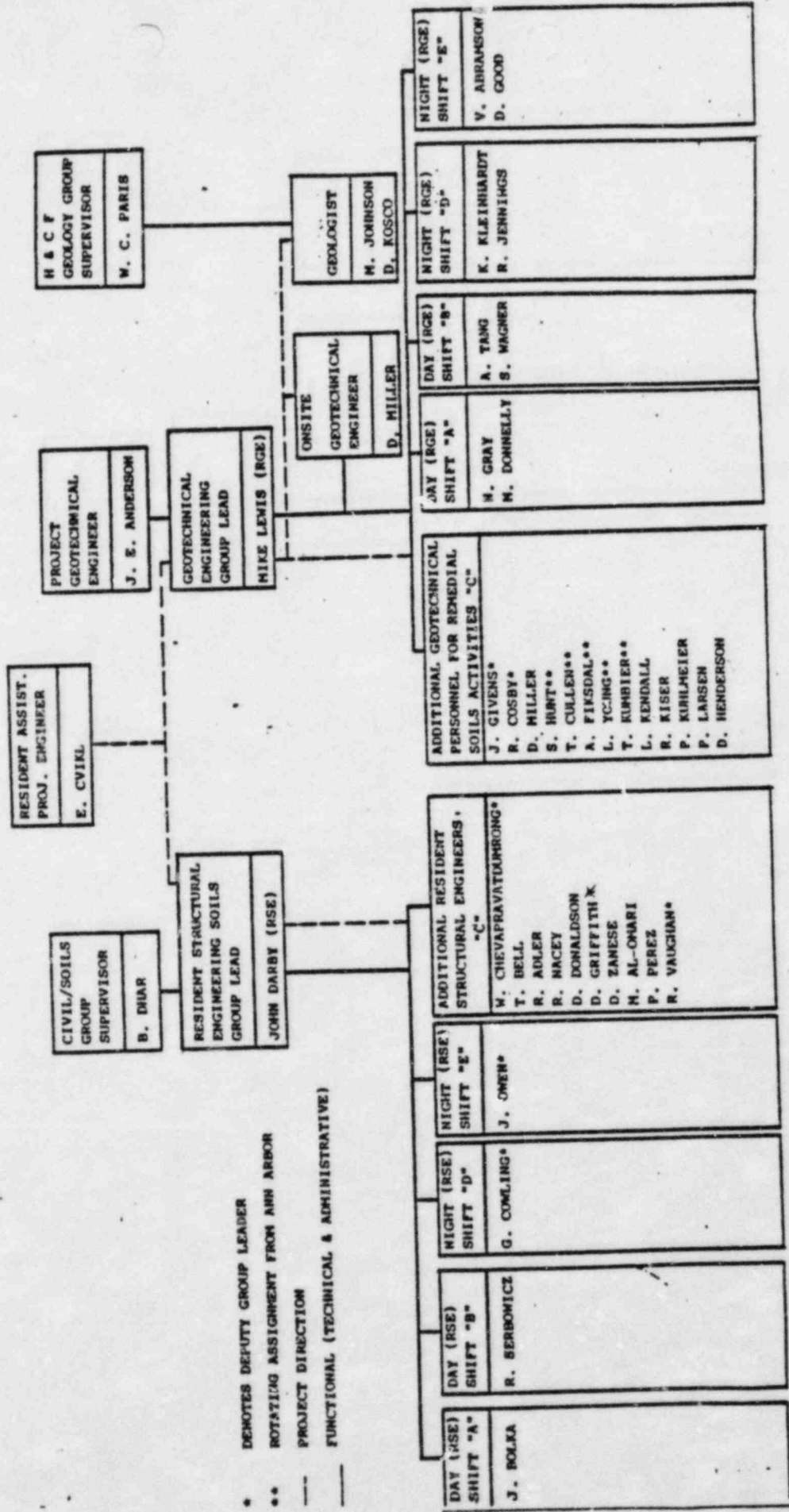
Prepared: *E. M. Smith* Date: *8-11-85*  
 Approved: *E. M. Smith* Date: *8-12-85*  
 Engineering Manager

- LEGEND
- Project (line to job) direction
  - Functional direction
  - Contribution
  - Functional direction (Technical and Administrative)
  - △ Backup
- NOTES
- 1 The small size and large separation means the technical direction from the field plant design engineer
  - 2 Engineering group supervisor means that technical direction from their respective plant engineers
  - 3 See Resident Engineering Organization Chart for details of resident organization
  - 4 In addition to the position on this chart the Resident Organization for Area 1000 engineering reporting to the project engineer, and is designated as simply the project engineer
  - 5 S, E, E, etc. refer to members of group organization shown in the leader column "Midland Engineering West Process Facility"
  - 6 Contribution in nature affecting resident engineering staffing, schedule commitments
  - 7 E. Brown is also designated on the project engineer. 1 startup coordinator

JOB	8.1 Project Engineering	CHART	APPA	DATE
	7236			

MIDLAND UNITS 1 & 2  
 JOB NO. 7220  
 RESIDENT ENGINEERING  
 SOILS ORGANIZATION

UPDATE: 8/9/83



- \* DEMOTES DEPUTY GROUP LEADER
- \*\* ROTATING ASSIGNMENT FROM ANN ARBOR
- PROJECT DIRECTION
- FUNCTIONAL (TECHNICAL & ADMINISTRATIVE)

TRIP NOTES  
INDEPENDENT ASSESSMENT FOR UNDERPINNING  
MIDLAND PLANT - UNITS 1 AND 2  
CONSUMERS POWER COMPANY

J.O. No. 14358  
September 26, 1983

August 30, 1983

Attended the daily meeting on the underpinning effort. The concrete for pier Kc10 had not been placed. The bell had been excavated and shored. The mud mat had been placed and reinforcing steel installation was complete.

After the daily meeting we reviewed the design of the grillage beams and discussed the problem of a scratch on the spherical bearings. This problem was being reviewed with the bearing vendor and the final resolution was to accept the bearings as satisfactory.

Continued discussion with Messrs. E. Cvikl and J. Darby concerning the Resident Engineering organization and its relationship to Ann Arbor Power Division (AAPD). Bechtel indicated that the resident discipline engineering group which is an onsite extension of the AAPD Project Engineering Group can only approve items that do not affect design calculations. After the design for the underpinning has been finalized, the calculations will be transmitted to the jobsite and additional onsite resident engineering personnel will be added to provide support to the ongoing construction effort. It is expected that the first of these calculations covering the Borated Water Storage Tank (BWST) and the Service Water Pump Structure (SWPS) will be transmitted to the jobsite about October 1, 1983.

We also discussed the relationship of the underpinning Contract Manager to both the Field Engineering group and the Resident Engineering group. It was suggested that certain decisions could have contract cost implications and therefore the resolutions of items such as acceptability of materials or decisions to scrap or rework an item might involve contract management in the decision making process. The Resident Engineering group indicated that the Field Engineering makes the decision on whether or not the resolution of a problem is through the scraping and refabrication of an item or reworking a given item until it is acceptable. Such items could be covered both by a Field Change Request (FCR) or a Nonconformance Report (NCR).

Completed the review and editing of the trip notes for August 24, through August 27, 1983.

August 31, 1983

Began the review of the package of the latest FCRs obtained from the Field Soils Organization. The response time for an FCR is defined as the duration from the date of initiation to the date of interim approval since this is the point at which the FCR is released for implementation. The classification system will be developed as the FCRs are reviewed, but in general the initial concept is to consider the following broad categories:

1. Construction—which will include a broad spectrum of problems relating to existing site conditions and their influence on the work.

2. Welding—as it pertains both to fabrication and construction activities.
3. Tolerances—as it pertains both to fabrication and construction activities.
4. Materials—as it relates to substitutions, availability, or other conditions.
5. Hilti Bolts—as it relates to size, location, and installation.
6. Testing—as it relates to both shop and field work.
7. Fabrication—as it relates to shop work.

The evaluation will determine the percentage of FCRs in each of the above categories and the mean response time will be computed.

Attended the Engineering-Construction meeting at 10:00 a.m. This meeting is attended by AAPD Project Engineering, Resident Engineering, Field Engineering, MPQAD, and the Site Management Office. This meeting consists of a review of a list of action items, review of critical FCRs, review of critical NCRs, a review of the status of vendor submittals and a review of QAP Task Force items.

A discussion was held concerning the holds on the Hanson Engineering drawings for piers C<sub>C</sub>-3 and C<sub>C</sub>-10. These drawings were submitted as part of a work package to Consumer Power for review and had to be withdrawn when the holds were discovered. Many of the jackstands still have holds on them and Field Engineering requested that every effort be made to release these holds.

It was indicated that an evaluation of the lessons learned on the installation of the grillage beams and their design for future work is in progress. This evaluation will be presented during the week of September 5, 1983.

There was a discussion between Field Engineering and Project Engineering to establish a method to review specifications and/or associated work procedures to better determine what must be inspected. An earlier review which was performed by two independent groups within Bechtel basically resulted in the same conclusions concerning the preparation of work procedures. It was agreed that the FSO would proceed to develop a plan for the implementation of this activity and submit it to Consumer Power for consideration. It was pointed out that this review would require the participation of Project Engineering.

The following firms are also providing designs and drawings for the underpinning effort:

Hanson Engineering, Inc.  
Spencer White & Prentis, Inc.  
Mueser, Rutledge, Johnston and DeSimone

Discussed with both the Field Engineering and Resident Engineering why so many of the FCRs which I had obtained for review purposes did not contain final approval signature of the Project Engineer. I was assured that I had the



current and valid copies of the FCRs. I continued my evaluation of the FCRs and completed about 50 percent of the review of these documents.

Toured the site looking at the progress of the underpinning effort for the SWPS, the repairs to the ring beams on the BWST and the completed concrete work on pier Kc10 under the turbine building. I also looked at the work associated with replacing the grillage beams between the containment mat and pier E8.

September 1, 1983

Completed the review of 62 FCRs. The overall mean response time is 2.1 days. However, if three of the FCRs with the longest response times, mainly 16, 13, and 12 days are not included in the calculated mean, the mean response time then becomes 1.5 days. This indicates that the document is being processed efficiently and the review indicates also that the document is being used in a meaningful manner. Out of the 62 FCRs reviewed only two were not accepted. Only 8 of the 62 FCRs contained final approval of the Project Engineer.

Attended the daily meeting and was advised that pier Kc10 had been poured and that an NCR had been filed against the last portion of the pour around the anchor bolts because the slump of the concrete prior to the addition of the plasticizer was less than 3 inches plus or minus 1 inch.

This pour continued because of the criticality of not having a cold joint close to the bottom of the anchor bolt embedment.

Requested copies of the documentation from AAPD which defines the responsibilities of the FSO Resident Project Engineer and the Resident Structural Engineer. I was advised that this information is contained on Bechtel inter-office memorandums and it is company policy not to release information in this form. However, I was permitted to review the documents. For the Resident Structural Engineer authority to approve to FCRs covers such items as minor changes to reinforcing steel, embedments, tackwelds, fabrication, minor weld details, driftsets, vendor fabrication, construction procedures and instrumentation drawings. Any change requests which affect the detailed design and involve review or alteration of existing calculations or the preparation of new calculations must be approved by AAPD.

The Resident Project Engineer is authorized to approve all NCRs and FCRs which the resident discipline engineering group has prepared dispositions for.

I again requested an explanation as to why so many of the FCRs were not signed in the final approval block by the Project Engineer or his designee. I was advised that the signature had not been included in the FCRs because they had not been submitted for signature.

I was also advised that in confirming my previous understanding, FCRs would be incorporated onto the design drawings when more than five had accumulated against an individual drawing. However, no written procedure has been issued to confirm this action.

While I was assured that the Project Engineer's signature was not important since the work could proceed on an interim approval basis, I consider it



important from a quality standpoint that the FCRs contain the Project Engineers signature and that this review be completed as promptly as possible following the interim review.

I consider it important that the following events occur:

1. All FCRs promptly receive the review and approval by the Project Engineer or his onsite designee.
2. That the design drawings be updated for the criteria of five or more FCRs against a single drawing. The matter of drawing legibility is an important quality issue.

Reviewed a Consumer Power Company letter dated July 19, 1983, concerning a quality assurance trend analysis for NCRs and a document undated entitled "Status Remedial Soils Inspection" which provided an assessment of the closure time for NCRs. These documents may assist in the review of the response time for the most recently issued NCR.

As a result of my two visits to the Midland Plant site, there are two major activities that should be implemented and will improve the overall quality of the work by reducing the time it takes to complete the construction of the piers and apply the jacking loads. These conclusions are as follows:

1. To the extent possible maximum engineering support should be provided at the jobsite. The design calculations, including those prepared by the consultants, should be transferred to the jobsite with appropriate engineering and design support as soon as possible.
2. Existing construction procedures and all future procedures which will be developed should define the necessary levels of inspection consistent with the requirements of the specifications. Unnecessary levels of inspection do not improve the quality of the work but do impede progress. An example of such an unnecessary inspection is the inspection performed on the tack welding which attaches nuts to the inside of the steel tube walers used for lagging of pier shaft excavations. Welds which are important to strength should be inspected. Those which have no principal strength requirements should not be inspected. This effort will have to include the participation of AAPD Project Engineering and may, for consistency purposes, require revisions to the existing specifications.

September 2, 1983

Attended the daily meeting at 8:00 am. Pier Kc3 had been excavated and it is expected the concrete will be placed on September 3. MPQAD and the independent assessment team were advised that the super plasticizer concrete mix would not be used. The problem regarding this mix has to do with the minimum slump limit both at the truck and at the point of delivery. Until these technical issues with the mix are resolved, a regular concrete mix will be used and 3 days will be required before the pier obtains sufficient strength for the application of the jacking loads.

Two NCRs were issued on the concrete placement for Kc10. The first NCR was for a faulty thermometer to measure concrete temperatures being used by US Testing. The second NCR was written against the concrete concerning the minimum slump at the point of delivery to the concrete pump. Both of these NCRs are expected to be successfully resolved.

Met with Mr. S. DiPillo of MPQAD to discuss what information is currently available relative to trend and analysis of NCRs. I was given by MPQAD the Phase III Quality Trend Graph for Remedial Soils Charts R, R1 through R8 updated through June 1983. MPQAD advised that they have no permanent tracking system that either relates NCRs to manhour of work or some other equally acceptable yard stick and that no analysis on a regular basis is made concerning the response time for NCRs. They indicated that they are not aware of any formal priority system, but are advised by Bechtel on a case-by-case basis which NCRs are critical in terms of the review of the responses. MPQAD indicated that a one time analysis for response times to NCRs had been prepared, and I acknowledged that I had a copy of this particular study along with the Phase III Quality Trend Graphs for Charts R through R7 updated through May 1983. Mr. DiPillo advised that the occurrence rates that show on the quality trend graphs are not the number of NCRs issued but the number of parts, pieces or items that are affected by the NCRs issued.

The quality trend graph provides both information concerning the total number of deficiencies, as well as individual graphs for the following classifications:

- R - Total Number of Deficiencies
- R1 - Incomplete
- R2 - Tolerances Exceeded
- R3 - Not per Drawing/Specification
- R4 - Workmanship
- R5 - Procedural Problems
- R7 - Purchased Equipment
- R8 - Miscellaneous

The grillage beams are being placed into their final location. This is the first set of grillage beams which run from pier E8 to the containment mat and will support both a portion of the turbine building and two support points under the Auxiliary Building.

After the daily meeting I met with Mr. E. Cvikl and requested that he confirm my understanding during the Engineering-Construction meeting that the

various subcontracting engineering firms performing design work on the underpinning will deliver their computations to the jobsite and provide the necessary engineering support during the construction phase.

*W. C. Craig*

W. C. Craig  
Senior Structural Engineer

sent to DMB 10/31/83



Consumers Power Company

Midland Project: PO Box 1963, Midland, MI 48640 • (517) 631-8650

PRINCIPAL STAFF		
✓ PA	has	DRPP
D/RA		DE
A/RA		DRMSP
✓ RC	has	DRMA
PAO		SCS ✓
CGA		ML
ENR		File

orig 3

October 21, 1983

Mr Stan Baranow  
Stone and Webster  
Midland Nuclear Plant Project  
Trailer 186  
3500 E Miller Road  
Midland, MI 48640

MIDLAND ENERGY CENTER PROJECT -  
TRANSMITTAL OF PQCI's  
FILE 24.2 SERIAL 26313

This will confirm the transmittal of controlled copies of PQCI and/or changes to Stone and Webster, as listed below:

- C-2.10 Rev 12 CN#AA00108
- C-1.50 Rev 13 Rescinded until Further Notice
- E-5.0 Rev 13 Replacement IR page 1.
- Control Log Week Ended 10-14-83
- CW-1.00 Rev 5 CN#AA00111

GFewert/JAPucci

*JA Pucci / SRY*

cc: JKeppler, NRC Region III Administrator  
DHQuamme, SMO  
RAWells, MPQAD

OC0983-0001A-QL05

OCT 31 1983

*83/1020393*



Consumers  
POWER  
Company

Midland Project: PO Box 1963, Midland, MI 48640 • (517) 631-8650

October 19, 1983

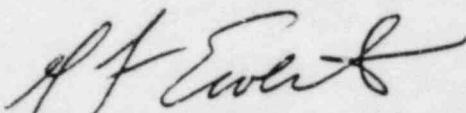
PRINCIPAL STAFF			
✓ PA	<i>per</i>	DEPB	
J/RA		DE	
A/RA		DR/SH	
✓ PC	<i>per</i>	DR/MA	
PAO		SCS	<i>sig+3</i>
SGA		ML	
ENF		File	<i>per</i>

Mr Stan Baranow  
Stone and Webster  
Midland Nuclear Plant Project  
Trailer 186  
3500 E Miller Road  
Midland, MI 48640

MIDLAND ENERGY CENTER PROJECT -  
TRANSMITTAL OF QA PROGRAM MANUALS  
FILE 24.2 SERIAL 26303

This will confirm the transmittal of controlled copies of Quality Assurance Program Manual for the Midland Nuclear Plant to Stone and Webster as listed below:

- Volume I - Policies
- Volume II - Procedures for Design & Construction



Gary F Ewert, Division Head  
Quality Services  
Midland Project QA Department

GFE/kw

CC JKeppler, NRC Region III Administrator  
DHQuamme, SMO  
RAWells, MPQAD

~~8310310369~~

OCT 26 1983





Consumers  
Power  
Company

Midland Project: PO Box 1963, Midland, MI 48640 • (517) 631-8550

October 17, 1983

LAB 97-83

Mr Stan Baranow  
Stone & Webster Engineering  
Midland Nuclear Plant Project  
Trailer 186  
3500 E Miller Road  
Midland, MI 48640

MIDLAND ENERGY CENTER PROJECT -  
TRANSMITTAL OF (3) COMPUTER PRINTS

This will confirm the transmittal of three computer printouts containing information on MPQAD (BCP) Inspector records. These prints cover all training, exams, performance demos, certifications, etc.

GFEwert/LABotimer

cc: JHarrison, NRC  
DEMiller, Site Mgr  
RAWells

8311080115



Consumers  
Power  
Company

Midland Project: PO Box 1963, Midland, MI 48640 • (517) 631-8650

LAB 82-83

September 26, 1983

Mr Stan Baranow  
Stone & Webster Engineering  
Midland Nuclear Plant Project  
Trailer 186  
3500 F. Miller Road  
Midland, MI 48640

MIDLAND ENERGY CENTER PROJECT -  
TRANSMITTAL OF (1) COMPUTER PRINT

This will confirm the transmittal of a computer printout containing information on MPQAD (BOP) Inspector records. The print covers all training, exams, performance demos, certifications, etc.

*L. Botimer*

GFEwert/LaBotimer

cc: JHarrison, NRC  
DEMiller, Site Mgr  
RAWells

SEP 29 1983

8317080111



**Consumers  
Power  
Company**

Midland Project: PO Box 1963, Midland, MI 48640 • (517) 631-8650

~~File~~  
File sent to DMB 10/24/83

PRINCIPAL STAFF	
RA	DRPP
D/RA	DE
A/RA	DRISP
RC	DRMA
PAO	SCS ✓
SGA	ML
ENF	File <i>ka</i>

October 17, 1983

Mr Stan Baranow  
Stone and Webster  
Midland Nuclear Plant Project  
Trailer 186  
3500 E. Miller Road  
Midland, MI 48640

MIDLAND ENERGY CENTER PROJECT -  
TRANSMITTAL OF PQCI's  
FILE 24.2 SERIAL 26295

This will confirm the transmittal of controlled copies of PQCI and/or changes to Stone and Webster, as listed below:

Control Log	Week Ending	10/7/83	E-6.6.1	Rev 4	CN#AA5120
P-2.30	Rev 4	CN#AA00100	E-6.0	Rev 16	CN#AA5121
PF-1.10	Rev 5	Memo	SM-1.70	Rev 1	Revised Eff
P-1.00	Rev 7	CN#AA00101			Date
P-1.40	Rev 1	New Rev	P-2.20	Rev 8	CN#AA00109
C-8.51	Rev 4	New Rev	P-2.30	Rev 4	CN#AA00107
C-6.00	Rev 8	CN#AA00104	PF-1.10	Rev 5	CN#AA00105
C-2.11	Rev 3	New Rev	E-1.0	Rev 15	CN#AA5119
			E-5.0	Rev 13	CN#AA5122

GFEwert/JAPucci

cc: ~~JKeppler, NRC Region III Administrator~~  
DEMiller, SMO  
RAWells, MPQAD

*8316270066*

OC0983-0001A-QL05

OCT 24 1983

sent to DMB 10/17/83 ~~sent~~  
② File



**Consumers  
Power  
Company**

**Roy A Wells**  
Executive Manager  
Midland Project Office

Midland Project: PO Box 1963, Midland, MI 48640 • (517) 631-8650

October 13, 1983

S W Baranow, Program Manager  
Stone and Webster Michigan Inc  
PO Box 1963  
Midland, MI 48640

PRINCIPAL STAFF		
✓ RA	RA	PRP
D/RA		DE
A/RA		DRMSF
PC		DRMA
PAO		SCS
SGA		ML
ENF		File

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MIDLAND ENERGY CENTER PROJECT - STONE AND WEBSTER NIRs 002 through 005  
FILE 24.2 SERIAL 26289

The purpose of this letter is to provide an initial response to NIR 002 through 005 which were received from you by G F Ewert on October 7, 1983.

In order to track these items to closure on our computerized QUAIL system, it is necessary for us to prepare a Quality Action Request (QAR) on each one. The QARs on NIRs 002 through 005 are enclosed herewith. They describe the actions we are taking to resolve each deficiency identified.

The deficiencies which were identified in a sample of 6 in a population of 45 have convinced us that a review of broader scope is warranted. To track this extended review we have issued QAR No. RT 00010, which will apply to the qualification and certification records of all MPQAD certified inspection personnel. This review is expected to be completed by December 16th. Although we do plan to do a thorough review of the records, we are confident that the existing certification process is a valid process.

*G F Ewert*  
For RA Wells  
RAW/kw

Enclosures

CC Administrator, NRC Region III  
RJCook, Resident NRC Inspector  
DBMiller

8310200265

OCT 17 1983

<b>MIDLAND PROJECT</b> <b>QUALITY ASSURANCE DEPARTMENT</b> <b>NIR 002</b>		<b>QUALITY ACTION REQUES.</b>		6. QAR NO: RT 00005	
		7. DATE ISSUED: 10/12/83		8. REV: 0	
1. REQUIREMENT: Vision Exam Records Performance Demonstration Records Personnel Certifications Qualification Questionnaires		} Forms shown in B-3M-1 to have been used		9. PAGE 1 OF 2	
				10. ASME RELATED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
2. DEFICIENCY: 1) Forms shown in B-3M were used in some cases. 2) On some certification forms, the revision number of the PQCI to which the individual was certified was not shown. These deficiencies were identified on Stone and Webster NIR 002.				11. POTENTIAL 50.55(e) YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	
3. QAR ORIGINATED BY: D M Turnbull		4. DISCIPLINE/DIVISION/SECTION A & T		5. RESPONSE DUE DATE N/A	
				12. REPORTED TO MPQA MANAGER: DATE N/A	
13. ACTION ITEM NO: S03485		15. ITEM PRIORITY: 3		17. S/U CODE: PGM00	
14. DISCIPLINE: A & T		16. TREND CODE: I-5		18. RESB CODE: A & T	
				19. ACTION ORGANIZATION Qual. & Cert. Records Group Plant Assurance Engineering Branch	
				20. QAR REVIEWED BY: <i>[Signature]</i> 21. DATE: 10/12/83	
22. CAUSE: The old forms were not recalled when the new forms came into effect.		23. PROPOSED CORRECTIVE ACTION: 1) The correct forms will be distributed to all Level III personnel, with instructions to destroy stocks of forms now on hand by 10/17/83. (L A Botimer) 2) Comparison of the old with the new forms (continued on page 2 of 2)			
24. RESPONSIBLE ORGANIZATION/PERSON: L A Botimer, Qual. & Cert. Records G E Parker, Plant Assurance Eng. Branch		25. PROPOSED COMPLETION DATE November 4, 1983			
26. DISPOSITION CONCURRENCE: <i>[Signature]</i> 10/12/83 QAR REVIEWER                      DATE		N/A A/E 10/12/83 PQAE (ASME ONLY)                      DATE			
27. DISPOSITION ACTION TAKEN:					
28. METHOD OF DISPOSITION VERIFICATION  ACCEPTABLE <input type="checkbox"/> UNACCEPTABLE <input type="checkbox"/> SUPERCEDING QAR _____				29. QAR CLOSED BY _____ DATE P/QCE (ASME ONLY)                      DATE	



QUALITY ACTION REQUEST  
CONTINUATION SHEET

QAR NO: RT 00005

DATE: 10/12/83

REV: 0

PAGE 2 OF 2

indicates that with one exception the use of the incorrect form cannot have resulted in any lack of information or incorrect approvals. Therefore the incorrect forms will be allowed to remain in the files.

3) The one exception, which does not apply to the electrical inspectors included in this QAR, is the Personnel Certification Form, where QA-37-0 does not require the approval of the PQAE for ASME-related PQCI's, while QA-37-1 does require it. This problem will be addressed in QAR RT 00010.

4) All currently valid certifications in the population of 45 will also be reviewed to identify those on which the revision level of the PQCI was omitted. The revision level will be added and the forms will be reapproved by a Level III person. (L A Botimer and G E Parker)

MIDLAND PROJECT QUALITY ASSURANCE DEPARTMENT NIR 003			QUALITY ACTION REQUES			6. QAR NO: RT 00006
1. REQUIREMENT:  Procedure B-3M-1, Section 5.10.1 requires that each certified individual pass an annual vision examination.			7. DATE ISSUED: 10/12/83		8 REV: 0	
2. DEFICIENCY:  One individual was found to have had his vision examination conducted nine days after the expiration of his previous annual examination.  This deficiency was identified on Stone and Webster NIR 003.			9. PAGE 1 OF 2		10. ASME RELATED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
3. QAR ORIGINATED BY: D M Turnbull		4. DISCIPLINE/DIVISION/SECTION A&T	5. RESPONSE DUE DATE N/A		11. POTENTIAL 50.55(e) YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	
13. ACTION ITEM NO: S03486	15. ITEM PRIORITY: 3	17. S/U CODE: PGM00	19. ACTION ORGANIZATION Q&C Records Group Program Development Group Special Projects		20. QAR REVIEWED BY: <i>R J Oberle</i>	
14. DISCIPLINE: A&T	16. TREND CODE: I-5	18. RESB CODE: A&T	21. DATE: 10/12/83			
22. CAUSE:  Unknown.			23. PROPOSED CORRECTIVE ACTION:  1) This individual's supervisor has written a memo to be put in the training folder, saying the 3/18/83 examination is satisfactory evidence that the individual's visual acuity was acceptable during the 9 day period by which the examination was overdue. Completed 10/11/83. (Continued on page 2 of 2)			
24. RESPONSIBLE ORGANIZATION/PERSON: L A Botimer, Q&C Records D M Turnbull, Special Projects R J Oberle, Program Development			25. PROPOSED COMPLETION DATE  November 4, 1983			
26. DISPOSITION CONCURRENCE:  <div style="display: flex; justify-content: space-between;"> <div> <i>R J Oberle</i>            QAR REVIEWER         </div> <div>           10-13-83            DATE         </div> <div>           N/A            PQAE (ASME ONLY)         </div> <div> <i>R J Oberle</i>            10-13-83            DATE         </div> </div>						
27. DISPOSITION ACTION TAKEN:						
28. METHOD OF DISPOSITION VERIFICATION   ACCEPTABLE <input type="checkbox"/> UNACCEPTABLE <input type="checkbox"/> SUPERCEDING QAR _____			29. QAR CLOSED BY  _____ MPQAD DATE  _____ PFQCE (ASME ONLY) DATE			

MIDLAND PROJECT  
QUALITY ASSURANCE DEPARTMENT

QUALITY ACTION REQUEST,  
CONTINUATION SHEET

QAR NO:	RT 00006	
DATE:	10/12/83	REV: 0
PAGE:	2 OF 2	

2) All qualification folders in the population of 45 will be reviewed to identify similar lapses. Each case identified will be dispositioned by the appropriate supervisor and documentation to this effect will be put in the files. (L A Botimer)

3) Corrective action to prevent recurrence will be taken in accordance with QAR RT 00010.

MIDLAND PROJECT QUALITY ASSURANCE DEPARTMENT			QUALITY ACTION REQUES			6. QAR NO: RT 00007	
NIR 004			7. DATE ISSUED: 10/12/83		8. REV: 0		
1. REQUIREMENT:  B-3M-1, DR 141, Section 5.6.3 requires that OJT be documented.			9. PAGE <u>1</u> OF <u>2</u>		10. ASME RELATED  <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		
2. DEFICIENCY: In a sample of 6 training folders, two lacked documentation on OJT or the lack of need for it. Two lacked a revision number on the PQCI on which OJT was given. One lacked a title for the PQCI on which OJT was given. These deficiencies were identified on Stone and Webster NIR 004.						11. POTENTIAL 50.55(e) YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	
3. QAR ORIGINATED BY: D M Turnbull		4. DISCIPLINE/DIVISION/SECTION A&T		5. RESPONSE DUE DATE N/A		12. REPORTED TO MPQA MANAGER: DATE N/A	
13. ACTION ITEM NO: SO3487	14. DISCIPLINE: A&T	15. ITEM PRIORITY: 3	16. TREND CODE: I-5	17. S/U CODE: PGM00	18. RESB CODE: A&T	19. ACTION ORGANIZATION MPQAD QC Q&C Records Program Development	20. QAR REVIEWED BY: <i>[Signature]</i> 21. DATE: 10/12/83
22. CAUSE:  Personnel failed to follow the steps necessary to ensure that records reached the files.				23. PROPOSED CORRECTIVE ACTION:  1) It has been established that the two persons whose folders lacked documentation on OJT had received such training and that documentation existed at one time. However, it was evidently not turned in to Q&C Records. If the search for this documentation proves fruitless, a memorandum will be prepared by the certifying agency (Continued on page 2)			
24. RESPONSIBLE ORGANIZATION/PERSON: MPQAD QC - E L Jones Q&C Records - L A Botimer Program Development - R J Oberle				25. PROPOSED COMPLETION DATE  November 4, 1983			
26. DISPOSITION CONCURRENCE:  <i>[Signature]</i> 10/13/83 QAR REVIEWER DATE							N/A <i>[Signature]</i> 10/13/83 PQAE (ASME ONLY) DATE
27. DISPOSITION ACTION TAKEN:							
28. METHOD OF DISPOSITION VERIFICATION  ACCEPTABLE <input type="checkbox"/> UNACCEPTABLE <input type="checkbox"/> SUPERCEDING QAR _____					29. QAR CLOSED BY  _____ MPQAD DATE		_____ PFQCE (ASME ONLY) DATE

QUALITY ACTION REQUEST  
CONTINUATION SHEET

QAR NO:

RT 00007

DATE:

10/12/83

REV:

0

PAGE 2 OF 2

saying that the lack of an OJT record does not invalidate the individual's certification because the presence of a Performance Demonstration record confirms the fact that the individual has the required ability. (ELJones)

2) Q&C Record folders in the population of 45 will be reviewed to identify any other cases of missing OJT records, or missing titles or revision numbers. Such omissions will be rectified by the certifying agency. (LABotimer)

3) MPQAD Procedures will be revised to require documentation of any decision that OJT is not required. (RJOberle)

4) Checklists are being developed for Q&C Records personnel which will remind them to return, for correction, any records which do not show revision numbers or titles for PQCIs. (LABotimer)



MIDLAND PROJECT QUALITY ASSURANCE DEPARTMENT		<b>QUALITY ACTION REQUEST</b>		6. QAR NO: RT 00010 7. DATE ISSUED: 10/12/83      8 REV: 0
1. REQUIREMENT:  MPQAD Procedure B-3M-1 requires inspector qualification records to reflect certain information. B-3M-1 also requires certain actions to be completed within specified time frames.		9. PAGE <u>1</u> OF <u>2</u> 10. ASME RELATED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		
2. DEFICIENCY:  This QAR is issued to track the broad scope review of Qualification and Certification folders which was determined to be necessary as a result of Stone and Webster NIRs 002, 003 and 004. These NIRs document conditions where information was not recorded on records or actions were not completed within specified time frames.		11. POTENTIAL 50.55(e) YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>		
3. QAR ORIGINATED BY: D M Turnbull	4. DISCIPLINE/DIVISION/SECTION A&T	5. RESPONSE DUE DATE N/A	12. REPORTED TO MPQA MANAGER: DATE: N/A	
13. ACTION ITEM NO: S03509	15. ITEM PRIORITY: 3	17. S/U CODE: PGM00	19. ACTION ORGANIZATION Q&C Records Group Program Development Special Projects	
14. DISCIPLINE: A&T	16. TREND CODE: I-5	18. RESB CODE: A&T	20. QAR REVIEWED BY: <i>[Signature]</i> 21. DATE: 10/12/83	
22. CAUSE:  See QAR RT00005, 00006 and 00007		23. PROPOSED CORRECTIVE ACTION:  1) Develop checklists to be used by reviewers covering what documents should be in each inspector's Q&C folder, and what characteristics must be checked on each document. (L A Botimer - 10/17/83)  (Continued on page 2 of 2)		
24. RESPONSIBLE ORGANIZATION/PERSON: Q&C Records Group - L A Botimer Program Development - R J Oberle Special Projects - D M Turnbull		25. PROPOSED COMPLETION DATE  December 16, 1983		
26. DISPOSITION CONCURRENCE:  <div style="display: flex; justify-content: space-between; align-items: flex-end;"> <div style="text-align: center;"> <i>[Signature]</i>              QAR REVIEWER           </div> <div style="text-align: center;">             10/13/83              DATE           </div> <div style="text-align: center;">             N/A              PQAE (ASME ONLY)           </div> <div style="text-align: center;">             10/13/83              DATE           </div> </div>				
27. DISPOSITION ACTION TAKEN:				
28. METHOD OF DISPOSITION VERIFICATION  ACCEPTABLE <input type="checkbox"/> UNACCEPTABLE <input type="checkbox"/> SUPERCEDING QAR _____		29. QAR CLOSED BY  _____ MPQAD _____ DATE  _____ PFQCE (ASME ONLY) _____ DATE		

QUALITY ACTION REQUEST,  
CONTINUATION SHEET

QAR NO: RT 00010

DATE: 10/12/83

REV: 0

PAGE 2 OF 2

2) Review each Q&C folder to the approved checklists to identify all discrepancies,

including but not limited to the following:

a) Certifications to ASME-related PQCI's which have not been approved by the PQAE.

b) Omission of PQCI revision numbers or titles from OJT records, PD records or  
Personnel Certifications.

c) Overdue vision examination which are not annotated with a reason and an evaluation  
of inspections done in the interim. (L A Botimer)

3) Have all discrepancies resolved by the appropriate certifying agency. (L A Botimer)

4) Revise MPQAD procedures to require the documentation of a decision that OJT is not  
required. (R J Oberle)

5) Review the need to modify the existing system of notifying certified individuals of the  
impending expiration of their vision examinations or annual performance evaluations  
based on the results of the review conducted in 2 above. (D M Turnbull)

MIDLAND PROJECT QUALITY ASSURANCE DEPARTMENT		QUALITY ACTION REQUES.		6. QAR NO: RT 00011	
1. REQUIREMENT:  B-3M-i, Section 5.9, requires the supervisor to complete the appropriate Personnel Certification Form, Attachment D.		7. DATE ISSUED: 10/13/83		8 REV: 0	
		9. PAGE <u>1</u> OF <u>1</u>		10. ASME RELATED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
2. DEFICIENCY:  Stone and Webster NIR 005 identified, as a nonconformance, the lack of Form QA-116-1 in the folders of six Level II inspectors.					
3. QAR ORIGINATED BY: D M Turnbull			4. DISCIPLINE/DIVISION/SECTION A&T		5. RESPONSE DUE DATE N/A
11. POTENTIAL 50.55(e) YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>		12. REPORTED TO MPQA MANAGER: DATE N/A			
13. ACTION ITEM NO: S03536	15. ITEM PRIORITY: N/A	17. S/U CODE: N/A	19. ACTION ORGANIZATION N/A		20. QAR REVIEWED BY: <i>[Signature]</i>
14. DISCIPLINE: A&T	16. TREND CODE: N/A	18. RESB CODE: N/A	21. DATE: 10/12/83		
22. CAUSE:  None. This form is to be used for Level III certifications only. It was verified that the appropriate form for Level II personnel was in each folder.			23. PROPOSED CORRECTIVE ACTION:  N/A		
24. RESPONSIBLE ORGANIZATION/PERSON:  N/A			25. PROPOSED COMPLETION DATE:  N/A		
26. DISPOSITION CONCURRENCE:  <div style="display: flex; justify-content: space-between;"> <div style="text-align: center;"> <i>[Signature]</i>            QAR REVIEWER    10/13/83            DATE         </div> <div style="text-align: center;">           N/A            PQAE (ASME ONLY)    10/13/83            DATE         </div> </div>					
27. DISPOSITION ACTION TAKEN:    					
28. METHOD OF DISPOSITION VERIFICATION    ACCEPTABLE <input type="checkbox"/> UNACCEPTABLE <input type="checkbox"/> SUPERCEDING QAR _____				29. QAR CLOSED BY  _____ DATE _____  _____ DATE _____ PFQE (ASME ONLY)	

STONE AND WEBSTER MICHIGAN, INC.  
P.O. BOX 13, MIDLAND, MICHIGAN 48640

DATE	10-05-83
J. O. NO.	14509
P. O. NO.	N/A
LTR. NO.	83-0001
REF.	N/A

VIA

R. WELLS, MPQAD

DEAR SIRs:

THE FOLLOWING ARE  ATTACHED:  SENT SEPARATELY:

2	COPIES	PRINTS	REPRODUCIBLES	MICROFILM APERTURE CARDS
EACH OF				
<input type="checkbox"/>	DRAWINGS	<input type="checkbox"/>	SPECIFICATIONS	
<input checked="" type="checkbox"/>	DOCUMENTS	<input type="checkbox"/>	NOTES OF CONFERENCE	

STATUS		PLEASE NOTE	SENT FOR YOUR	
<input type="checkbox"/> FINAL	<input checked="" type="checkbox"/> APPROVED	<input type="checkbox"/> REVISIONS	<input type="checkbox"/> APPROVAL	<input type="checkbox"/> COMMENT
<input type="checkbox"/> PRELIMINARY	<input type="checkbox"/> APPROVED AS REVISED	<input type="checkbox"/> ADDITIONS	<input checked="" type="checkbox"/> USE	<input type="checkbox"/> INFORMATION
<input type="checkbox"/> NO COMMENT	<input type="checkbox"/> UNACCEPTABLE	<input type="checkbox"/> COMMENTS	<input type="checkbox"/> FILES	<input type="checkbox"/> CONCURRENCE
<input type="checkbox"/> SUGGESTIONS AS NOTED	<input type="checkbox"/>		<input checked="" type="checkbox"/> Response	

YOUR ATTENTION IS DIRECTED TO THE FOLLOWING:

RELEASED FOR:  FABRICATION  PURCHASE OF NECESSARY MATERIALS

PLEASE REVISE AND SUBMIT \_\_\_\_\_ PRINTS \_\_\_\_\_ REPRODUCIBLES \_\_\_\_\_ MICROFILM APERTURE CARDS

PLEASE SUBMIT \_\_\_\_\_ PRINTS \_\_\_\_\_ REPRODUCIBLES \_\_\_\_\_ MICROFILM APERTURE CARDS OF  DOCUMENTS  DRAWINGS  SHOP DETAIL

PLEASE RETURN ONE COPY EACH OF THIS MATERIAL BEARING YOUR APPROVAL OR COMMENTS.

PLEASE ACKNOWLEDGE RECEIPT OF THIS MATERIAL BY SIGNING AND RETURNING THE ENCLOSED COPY OF THIS FORM.

WE TRUST THAT THESE NOTES ARE IN ACCORDANCE WITH YOUR UNDERSTANDING. IF NOT, PLEASE REVISE US.

The attached NIRs are sent for your action and response.

In addition to the specific items described on the NIRs it is suggested that MPQAD review the records of all persons listed on printout dated September 19, 1983.

If you have any questions on the NIRs, please contact Walter Sienkiewicz at extension 487.

*S.W. Baranow*  
S.W. Baranow  
Program Manager

ENC: NIRs 0002, 0003, 0004, 0005  
LETTER: NRC-83-10-05

cc: G. A. HIERZER, BPCo (ATTENTION M. DIETRICH)

*I hereby acknowledge receipt of the above listed NIRs.*  
*[Signature]*  
10-7-83

STONE AND WEBSTER ENGINEERING CORPORATION  
NONCONFORMANCE IDENTIFICATION REPORT

QCI 15.01  
Attachment 4.1  
Revision 2

PAGE 1 OF 3

DATE OF NONCONFORMANCE: SEPTEMBER 27, 1983

NIR NUMBER 002

IDENTIFICATION/LOCATION OF ITEMS:

MPQAD - RECORDS FILE SECTION

DESCRIPTION OF NONCONFORMANCE:

During a sample inspection of 6 of 45 MPQAD Personnel Training Records, discrepancies were observed in the use of forms to document training activities. It was observed that forms from both B-3M and B3M-1 Procedures were utilized. Forms as found in B-3M-1 are the appropriate ones. See attached list of discrepant items:

Walter H. Siemkiewicz  
INITIATOR

DATE September 27, 1983

PROGRAM MGR [Signature]

DATE October 3, 1983

CORRECTIVE ACTION BY:

MPQAD

IDENTIFY ORGANIZATION TAKING CORRECTIVE ACTION

VERIFICATION SAT UNSAT

INITIATOR \_\_\_\_\_

DATE \_\_\_\_\_

NEW NIR#

DATE

CONCURRENCE

PROGRAM MGR \_\_\_\_\_

DATE \_\_\_\_\_

REMARKS



PERSONNEL

- 1) B. E. FREIMARK - 365-64-4818
  - 1) Vision Examination Record - Form QA-14-2 used in lieu of QA-115-0
  - 2) Performance Demonstration Record Form QA-10-2 used in lieu of QA-114-0
2. T. G. NELSON - 276-56-6857
  - 1) Vision Examination Record - Form QA-14-2 used in lieu of QA-115-0
  - 2) Personnel Certification - Form QA-37-0 used in lieu of QA-37-1
  - 3) Performance Demonstration Record Form QA-10-2 used in lieu of QA-114-0
3. S. REVICH - 379-84-0876
  - 1) Inspection Test Personnel Qualification Questionnaire Form QA-12-2 used in lieu of QA-117-0 and QA-118-0
  - 2) Vision Examination Record - Form QA-14-2 used in lieu of QA-115-0
  - 3) Personnel Certification - Form QA-37-0 used in lieu of QA-37-1,  
— Also a revision was not listed on the form. (REV NO OF PQL TO WHICH HE WAS CERTIFIED.)
  - 4) Performance Demonstration Record Form QA-10-2 used in lieu of QA-114-0
- 4) D. W. GASKILL - 278-54-0575
  - 1) Vision Examination Record Form QA-14-2 used in lieu of QA-115-0
  - 2) Performance Demonstration Record Form QA-10-2 used in lieu of QA-114-0
- 5) B. D. HINES - 365-52-6895
  - 1) Inspection Test Personnel Qualification Questionnaire Form QA-12-2 used in lieu of QA-117-0 and QA-118-0
  - 2) Vision Examination Record Form QA-14-2 used in lieu of QA-115-0
  - 3) Personnel Certification Form QA-37-0 used in lieu of QA-37-1
  - 4) Performance Demonstration Record Form QA-10-2 used in lieu of QA-114-0

- 6) J. R. ADOMOWSKI - 368-46-9164
  - 1) Vision Examination Record Form QA-14-3 used in lieu of QA-115-0
  - 2) Performance Demonstration Record Form QA-10-2 used in lieu of QA-114-0

STONE AND WEBSTER ENGINEERING CORPORATION  
NONCONFORMANCE IDENTIFICATION REPORT

QCI 15.01  
Attachment 4.1  
Revision 2

PAGE 1 CF 1

DATE OF NONCONFORMANCE: SEPTEMBER 27, 1983 NIR NUMBER 003

IDENTIFICATION/LOCATION OF ITEMS:

MPQAD - RECORDS FILE SECTION

DESCRIPTION OF NONCONFORMANCE:

A check of MPQAD Personnel Training Records indicated that the yearly Vision Examination of B. D. Hines was exceeded. The due date for the Examination was March 9, 1983. The date of the Examination was March 18, 1983.

Walter H. Sienkiewicz  
INITIATOR

DATE September 27, 1983

PROGRAM MGR [Signature]

DATE October 3, 1983

CORRECTIVE ACTION BY:

MPQAD

IDENTIFY ORGANIZATION TAKING CORRECTIVE ACTION

VERIFICATION	SAT	UNSAT	NEW NIR#	CONCURRENCE
INITIATOR				PROGRAM MGR
DATE			DATE	DATE

REMARKS

STONE AND WEBSTER ENGINEERING CORPORATION  
NONCONFORMANCE IDENTIFICATION REPORT

QCI 15.01  
Attachment 4.1  
Revision 2

PAGE 1 OF 2

DATE OF NONCONFORMANCE: SEPTEMBER 27, 1983      NIR NUMBER 004

IDENTIFICATION/LOCATION OF ITEMS:

MPQAD - RECORDS FILE SECTION

DESCRIPTION OF NONCONFORMANCE:

During a sample inspection of 6 of 45 MPQAD Personnel Training Records, the following discrepancies were observed in the use of the on-the-job training records as required in Deviation #99 to Procedure B-3M-1.

Walter H. Sienkiewicz  
INITIATOR

PROGRAM MGR W. Burrows

DATE September 27, 1983

DATE October 3, 1983

CORRECTIVE ACTION BY:

MPQAD

IDENTIFY ORGANIZATION TAKING CORRECTIVE ACTION

VERIFICATION	SAT	UNSAT	NEW NIR#	CONCURRENCE
INITIATOR			DATE	PROGRAM MGR
DATE				DATE

REMARKS

PERSONNEL

- 1) B. E. FREIMARK - 365-64-4818
  - 1) There was no revision number listed on the OJT training record
- 2) T. G. NELSON - 276-56-6857
  - 1) The on-the-job training record was not available in the records file, but the above individual was certified to PQCI-E-6.0 Rev. 15
- 3) S. REVICH - 379-84-0876
  - 1) The on-the-job training record was not available in the records file, but the above individual was certified to PQCI-E-6.0 with no revision listed
- 4) D. W. GASKILL - 278-54-0575
  - 1) No revision number was listed on the on-the-job training record
- 5) B. D. HINES - 365-52-6895
  - 1) The title of the PQCI was not listed on the on-the-job training record



STONE AND WEBSTER ENGINEERING CORPORATION  
NONCONFORMANCE IDENTIFICATION REPORT

QCI 15.01  
Attachment 4.1  
Revision 2

PAGE 1 OF 1

DATE OF NONCONFORMANCE: SEPTEMBER 27, 1983 NIR NUMBER 005

IDENTIFICATION/LOCATION OF ITEMS:

MPQAD - RECORDS FILE SECTION

DESCRIPTION OF NONCONFORMANCE:

A sample inspection of 6 of 45 MPQAD Personnel Training Records revealed that the Personnel Certification Form QA-116-1, Attachment D is not available in the record file as required by Procedure B-3M-1.

PERSONNEL

- |                                 |                                  |
|---------------------------------|----------------------------------|
| 1) B. E. FREIMARK - 365-64-4818 | 4) D. W. GASKILL - 278-54-0575   |
| 2) T. G. NELSON - 276-56-6857   | 5) B. D. HINES - 365-52-6895     |
| 3) S. REVICH - 379-84-0876      | 6) J. R. ADOMOWSKI - 368-46-9164 |

Walter M. Sankiewicz  
INITIATOR

DATE September 27, 1983

PROGRAM MGR Suburban

DATE October 3, 1983

CORRECTIVE ACTION BY:

MPQAD

IDENTIFY ORGANIZATION TAKING CORRECTIVE ACTION

VERIFICATION	SAT	UNSAT	NEW NIR#	CONCURRENCE
INITIATOR			DATE	PROGRAM MGR
DATE				DATE

REMARKS